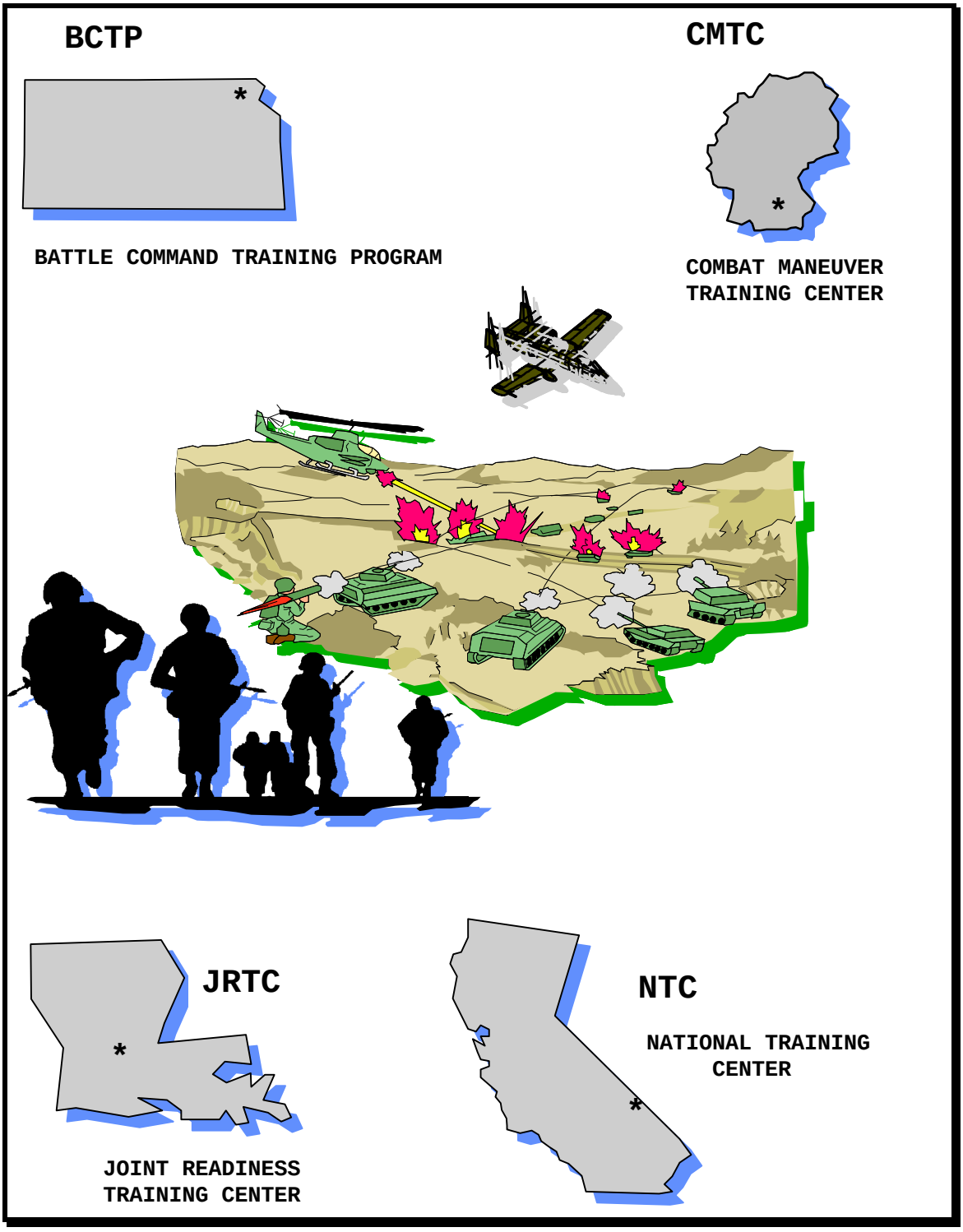

COMBAT TRAINING CENTER MASTER PLAN

Message from the Deputy Chief of Staff for Operations and Plans

The CTC Master Plan

The CTC Master Plan (MP) is the management plan to focus CTC Program initiatives on the Army's vision. The Army vision consists of the world's best Army— trained and ready for victory. A total force of quality soldiers and civilians:

- a values-based organization
- an integral part of the joint team
- equipped with the most modern weapons and equipment the country can provide
- able to respond to our nation's needs and
- changing to meet the challenges of today...tomorrow...and the 21st century.

The CTCs

The CTCs are the centerpiece of the Army's training system. The CTC Program includes the Battle Command Training Program (BCTP) at Fort Leavenworth, Kansas; the Combat Maneuver Training Center (CMTC) at Hohenfels, Germany; the Joint Readiness Training Center (JRTC) at Fort Polk, Louisiana; and the National Training Center (NTC) at Fort Irwin, California.

The CTC Program directly contributes to the readiness foundation of our Army's combat forces and supporting capabilities.

The CTC Program will support the future Army through leveraging the Army Training XXI training strategy and training system capabilities, optimizing the mix of live, constructive, and virtual simulations, linking to the Army schools, and exploring the full spectrum of military operations.

In doing so, the CTCs will continue to provide practice fields where units from the Total Army can hone combat skills against a thinking, capabilities-based Opposing Force. The CTC Program will maintain its emphasis on unrestricted force-on-force training and live fire exercises that approximate actual combat.

The focus will remain on battalion/task force and brigade operations at the maneuver CTCs through live simulation.

Continued on next page

Message from the Deputy Chief of Staff for Operations and Plans, Continued

Challenges

Under the direction of the Deputy Chief of Staff for Operations and Plans, the CTC MP translates the Army vision into executable CTC training objectives, strategies and initiatives in order to train the future Army. The CTC MP is our road map to take the CTCs into the 21st century.

/SIGNED
THOMAS N. BURNETTE, JR.
Lieutenant General, GS
Deputy Chief of Staff
for Operations and Plans

Note to Reader

Proponency

The proponent of the Army Combat Training Centers (CTC) Master Plan (MP) is Headquarters, Department of the Army (HQDA), Office of the Deputy Chief of Staff for Operations and Plans (DCSOPS) , ATTN: DAMO-TR, Washington, DC 20310-0450.

The Department of the Army (DA) Executive Agent (EA) for administration of the CTC Program and CTC MP is the Deputy Commanding General for Combined Arms, Training and Doctrine Command (TRADOC), ATTN: ATZL-CG, Fort Leavenworth, KS 66027-2300.

TRADOC's manager for the CTC Program and CTC MP is the Deputy Chief of Staff for Training, ATTN: ATTG-RC, Fort Monroe, VA 23651-5000.

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Changes

To help refine future publications, submit marked-up copies with suggested changes to the Program Manager.

Special Notes

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It does not authorize procurement, nor does it legally or contractually bind the government for purchase of any goods or services.

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Note to Reader, Continued

In this Master Plan

This master plan (MP) contains five chapters and seven annexes.

For information on...	Refer to...
CTC Program	Chapter 1
Battle Command Training Program (BCTP)	Chapter 2
Combat Maneuver Training Center (CMTC)	Chapter 3
Joint Readiness Training Center (JRTC)	Chapter 4
National Training Center (NTC)	Chapter 5
References	Annex A
Glossary	Annex B
CTC Capability Profiles	Annex C
Resourcing	Annex D
CTC Program RDA Initiatives	Annex E
CTC 2010 Visions	Annex F
Opposing Forces (OPFOR)	Annex G

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Note to Reader, Continued

Synopsis

Chapter one provides the purpose of the CTC MP, states the mission of the CTC Program and lays down the CTC vision for 2003.

Chapters two through five address the four CTCs— BCTP, CMTC, JRTC, and NTC. Each chapter provides the mission, vision 2003 (vision 2010 for JRTC), priorities, and initiatives for the respective CTCs.

Annex A (References) refers the reader to publications used in the preparation of the CTC MP.

Annex B (Glossary) contains acronyms and definition of terms used in the CTC MP.

Annex C (CTC Capability Profiles) contains capability profiles at the CTC Program and respective CTC levels. The profiles are ordered by the CTC pillars.

Annex D (Resourcing) contains resourcing information at the CTC Program and respective CTC levels. The information encompasses resourcing for manpower, equipment, and personnel. Annex D also contains the CTC Resource Reviews and the CTC Program Objective Memorandum (POM).

Annex E (CTC Program RDA Initiatives) contains the ordered CTC Program RDA initiatives.

Annex F (CTC 2010 Visions) contains the Vision 2010 briefs of the respective CTCs.

Annex G (Opposing Forces) describes the mission, vision, and initiatives of the opposing forces (OPFOR).

Chapter 1

CTC Program

Overview

Introduction

Chapter 1 of this master plan introduces readers to the Army's strategic plan for the CTC Program through FY03. This is a living document that will change as training requirements of the CTCs and the vision of Commanders change. Fundamental to the CTC Master Plan is review and oversight at the General Officer level.

Objectives

This chapter will—

- provide the purpose of the CTC Master Plan (MP)
- state the mission (what we do and who we do it for) of the CTC Program and
- provide the CTC vision for 2003 (what the CTC Program in 2003 will be).

In this chapter

This chapter contains the following topics.

Purpose

Introduction This topic provides the purpose of the CTC Program and its CTCs.

Purpose This master plan describes the missions, visions, priorities, and initiatives of the CTC Program and its CTCs to FY03. It will be used as the CTC Program's requirements document for program objective memorandum (POM) input.

Mission

Introduction

This topic provides the mission of the CTC Program and its CTCs.

Mission (what we do and who we do it for)

The mission of the CTC Program is to provide highly realistic and stressful joint and combined arms training according to Army and joint doctrine. The training approximates actual combat. The CTC Program—

- increases unit readiness for deployment and war fighting
- produces bold, innovative leaders through stressful tactical and operational exercises
- embeds doctrine throughout the Total Army
- provides feedback to Army and joint/combined participants and
- provides a data source for lessons learned in order to improve doctrine, training, leader development, organization, material, and soldier (DTLOMS).

CTC Vision 2003

Introduction

This topic provides the CTC vision for the year 2003.

CTC vision 2003 (where we want to be and how we want to be perceived)

- remain the premier collective training experience for the combined arms training strategies (CATS)
- remain current and relevant through sufficient TADSS/OPFOR modernization to keep pace with Army force modernization
- support training or conducting mission rehearsals on today's and tomorrow's battlefields
- provide supportable training expertise/products to the Army
- support complementary simulations for live training at the maneuver CTCs and
- maintain brigade-level scope at the maneuver CTCs; div/corps/Army component of a joint task force (JTF) at BCTP; and brigade-level at BCBST.

Sufficiency

Combined arms training environment that produces stress comparable to combat and that provides training units at all levels, across the requisite BOS, the feedback to understand and correct weaknesses and sustain strengths.

Assumptions

- The CTC Program will continue to be comprised of the BCTP, CMTC, JRTC, and the NTC.
- The expanded use of simulators and simulations (synthetic grid) will enhance the CTC live training exercises.
- Modernized systems will be delivered with the components needed for them to be fully integrated into the CTC battlefield.
- The CTC Program and its CTCs will evolve in the midst of changing threat, exploding technology, and declining budgets.
- The CTCs' TDAs will keep pace with training facility requirements.

Conditions

- Land warfare will remain tough, uncompromising and final; requiring soldiers of courage and leaders of competence.
- The center of gravity for practical experience is on tactical operations.
- Draw down and budget reductions require innovative leveraging of all resources to efficiently and effectively develop leaders and train ready for war soldiers, units, and future forces.
- The CTC OPFOR must keep pace with current and future threats; they must replicate a thinking, flexible, capabilities- based force.
- Spectrum access will vary across the CTCs.

Blue Forces (BLUEFOR) Training Scope

Introduction

Provided below are FY03 planning factors for the training of BLUEFOR at the CTCs to achieve the CTC vision 2003. Note: see Annex C (CTC Capability Profiles) for capability profiles for the CTC program and its CTCs at the end of FY03.

Factor	BCTP	CMTC	JRTC	NTC
Focus	• rotational training unit	• rotational training unit	• rotational training unit	• rotational training unit
Sponsor major command (MACOM)	• TRADOC	• USAREUR	• FORSCOM	• FORSCOM
Scope of training	• Army component of JTF, ARFOR, corps, division, and brigade battlefield (BCBST)	• armor/ mechanized brigade battlefield	• light/airborne air assault brigade battlefield	• armor/mechanized brigade battlefield
	• full spectrum of military operations	• full spectrum of military operations	• full spectrum of military operations	• full spectrum of military operations
	• force projection (mobilization, predeployment activities, deployment, entry operations, decisive operations, post-conflict or post-crisis operations)	• force projection (mobilization, predeployment activities, deployment, entry operations, decisive operations, post-conflict or post-crisis operations)	• force projection (mobilization, predeployment activities, deployment, entry operations, decisive operations, post-conflict or post-crisis operations)	• force projection (mobilization, predeployment activities, deployment, entry operations, decisive operations, post-conflict or post-crisis operations)
Training focus	• division/corps commanders and battle staff; brigade cdr/staff (BCBST)	• armor/ mechanized ; airborne battalion task force	• light/airborne/ ranger/air assault/special forces battalion task forces	• armor/ mechanized battalion task force
		• platoon to battalion	• squad to brigade	• platoon to brigade
	• brigade operations	• brigade operations	• brigade operations	• brigade operations

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Blue Forces (BLUEFOR) Training Scope, Continued

Factor	BCTP	CMTC	JRTC	NTC
Unit integration	• light or heavy brigade with heavy or light corps and div; SF Bn; PSYOP/ civil affairs • National Guard (NG) separate brigade w/AC Div	• div cav operations • light Bns • SF; PSYOP/ civil affairs units • attack helo Bn	• SF Bn; SOF aviation; PSYOP/ civil affairs; heavy Co/Tm; LRSD • attack helo Bn; assault helo Bn • ASG/CSG • level III medical support	• div cav operations • light Bns; SF/SOF aviation; PSYOP/ civil affairs • aviation Bde HQs; attack helo Bn; assault helo units • ASG/CSG • TOFM
	• interservice: • USAF	• interservice: • USAF • nongovernmental organizations (NGOs)	• interservice: • joint SOF • USAF (ACC) • USN/USMC ANGLICO • NGOs	• interservice: • USAF (ACC) • USMC • USN
User services/ MACOMs/ components	• EUSA • FORSCOM • NGB • USACOM • USMC • USN • USPACOM • USAREUR • USASOC	• NGB • USARC • USAREUR • USASOC • USEUCOM	• FORSCOM • JSOC • NGB • USACOM • USAF (ACC) • USARC • USARPAC • USARSO • USASOC • USMC • USN • USSOCOM • USSOUTHCOM	• FORSCOM • NGB • USARC • USARPAC • USASOC • USMC • USN

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Blue Forces (BLUEFOR) Training Scope, Continued

Factor	BCTP	CMTC	JRTC	NTC
Echelons • live fire • MOUT (FOF) • MOUT live fire	• none • none • none	• Co/Tm (+) • Co/Bn/TF • none	• Squad/Plt/Co/ SOF Tm • Co/Bn/TF/ SOF Tm • Plt/Co/SOF Tm	• Bn/TF/Bde • none • none

Capabilities	• 5-day div and corps seminars; 5-day div and 7-day corps WFX
	• AARS
	• ASAS compatibility
	• BCBST
	  • 5-day seminar and 3-day brigade battle exercise (BBX)
	• confederation of models (NSC contractors)
	• corps competitive deep operations
	• JTF operations
	• OPSGP D
	  • training exercises and operational missions
	• PAO seminars
	• SOF
	• SRO
	• USAF participation
	• WARSIM 2000
		• 1 Bn/TF force-on-force training
		• 2 Bn/TF simulation
		• AARs
		• ASAS compatibility
		• assault landing strips
		• CATT
		• CCTT
		• drop zones (2)
		• ISB
		• JTF operations
		• SAWE/ MILES II
		• USAF participation
			• 1 Bde TF training; 2 Bn/TF force-on-force training w/1 Bn CPX
			• 7-day LTP
			• ASAS compatibility
			• ASET IV
			• assault landing strips (3); one with C17 capabilities
			• CATT
			• CSH/MASH training
			• div/JTF replication
			• drop zones (multiple)
			• integrated CPX for 3d Bn
			• intermediate staging base (ISB) w/C5-A capable runway
			• joint SOF
			• live fire complex (Peason and Fullerton)
			• maneuver box expansion (Peason and Zion Hills)
			• SASO replicated battlefield each rotation
			• multi-site MOUT facility
				• 2 Bn/TF/Bde force-on-force training
				• AWR
				• ASAS compatibility
				• ASET IV
				• assault landing strips
				• AWMDS
				• Bde level live fire
				• CATT
				• CCTT
				• Civilians on the battlefield
				• drop zones
				• RSOI
				• SAWE/ MILES II

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Blue Forces (BLUEFOR) Training Scope, Continued

Factor	BCTP	CMTC	JRTC	NTC
Capabilities (continued)			• rural villages throughout training area • prepo fleet • SAWE/ MILES II • USASOC rotations • MOUT force-on-force and live fire facilities	

Clients
• corps
• echelons above division (EAD)
  • ASG/CSG
  • level III medical support
• divisions
 	
• brigades
 	
• battalions
  • air assault
  • airborne
  • AR/mech
  • light
  • ranger
• cavalry
  • ACR
  • squadron
  • divisional cavalry squadrons
• SOF
  • SF Bn
  • CA Bn
  • PSYOP
  • SOAR
• corps/div attack helo Bns
 	
• AFSOC
• NAVSOC
	
	• 4 AC
	
	• 10 AC/8 ARNG
	
	• 2 AC/39 ARNG
		
		• 5 AC
		
		• 13 AC
		
		• 1 AC
		• 12 AC
		
		• 2 AC
		
		• 2 AC
		
		• 1 AC
		• 5 RC
		• 3 AC/2 RC
		
		• 2 AC
			
			• 4 AC/13 RC/13 NG
			• 4 AC/12 RC
			
			• 14 AC/7 eSB
			
			• 39 AC/21 RC
			• 9 AC
			• 9 AC
			
			• 18 AC/21 RC
			• 3 AC
			• 3 AC
			
			• 1 AC
			• 2 AC
			
			• 22 AC/13 RC
			• 3 AC/2 RC
			• 2 AC/8 RC
			• 3 AC/3 RC
			• 8 AC
			• 6 AC
			
			• 1 AC/1 NG
			• 2 AC
				
				• 14 AC/8 eSB
				
				• 49 AC/24 RC
				
				• 43 AC/24 RC
				
				• 6 AC
				• 17 AC
				• 2 AC
				• 11 AC
				• 4 AC
				
				• 2 AC
				
				• 2 AC

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Blue Forces (BLUEFOR) Training Scope, Continued

Factor	BCTP	CMTC	JRTC	NTC
Rotation cycle	• five-day seminar for commanders and their battle staffs to conduct doctrinal reviews and a war gaming practical exercise • five- to seven-day WARSIM 2000-driven CPX for division and corps called "Warfighter" • three-day WARSIM 2000-driven exercise for ARNG Bdes called Brigade Battle Exercise (BBX) • ARFOR as requested	• 53-day exercise period (four overlapping 21-day TF level exercise periods); 3-day equipment issue/Bn/TF simulation exercise; 5-day situational training; 10-day force-on-force; 3-day equipment turn-in • 45-day exercise period (three overlapping 21-day TF level training periods) • 21-day exercise period (one 21-day period Abn TF level exercise period)	• 7-day LTP (90-100 days prior to rotation) for AC units and 360 days prior for RC units includes all brigade TF slice/BOS and SOF SOCCE • 4-day training outreach program (TOP) conducted by JRTC SOT-D at SOF home station; focus is staff planning • 23-day exercise period at JRTC that includes equipment draw/deployment and equipment turn-in/redeployment;	• 7-day RSO&I equipment draw; followed by 14-day force-on-force and live-fire exercise; followed by 7-day fleet regeneration

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Blue Forces (BLUEFOR) Training Scope, Continued

Factor	BCTP	CMTC	JRTC	NTC
Rotation cycle (continued)			• 13-day SOF live simulation including establishment of FOB; isolation of teams/mission planning 3-days; infiltration of teams and mission execution up to 10-days and the execution of a minimum of three live fires fully integrated scenario with brigade TF w/SOCCE link-up with brigade prior to D-Day • 16-day brigade TF live simulation (force-on-force) and live fire maneuver exercises includes establishment of ISB plan/ prep 4-days; air insertion by USAF fixed wing, Army rotary wing aircraft and tactical ground convoy into AO (82d ABN, ranger regiment conduct force entry); brigade force-on-force with one Bn in an integrated constructive	

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Blue Forces (BLUEFOR) Training Scope, Continued

Factor	BCTP	CMTC	JRTC	NTC
Rotation cycle (continued)			CPX with its TOC, cbt trains, and ALOC operating from field sites	
Support • AC/RC O/C train-up • allied	• none • as part of US rotation	• none • 5/FY	• 30/rotation/as required • as required (allied visitors/participating units w/BLUEFOR)	• as required • as required (allied visitors/participating units w/BLUEFOR)
• ARNG • AWE • CGSC • PFP • SIMITAR	• 2/FY • as required • 2/FY • as required • none	• none • as required • none • none • none	• 1/FY • as required • none • as required • none	• 1/FY • as required • none • as required • as required

Throughput
• BCTP
  • BCBST
  • BCTP
  • OPSGP D
• CMTC
• JRTC
• NTC
	• 14 rotations
	• 13 DE rotations
	• 4 exercises
		• 15 rotations	• 10 rotations	• 10 rotations

Remarks	• conventional operations scenario • brigade level training for ARNG	• conventional operations and regional response scenarios	• SASO • rapid deployment scenario • SOF • mission rehearsal • AC/RC: ASGs provide log support during deployment	• conventional operations scenario

OPFOR Training Scope

Introduction Provided below are FY03 planning factors for the OPFOR at the CTCs to achieve the CTC vision 2003. The OPFOR model is based on the FM 100-60-series.

Factor	BCTP	CMTC	JRTC	NTC
Unit	• WCOPFOR	• 1-4 IN (+)	• 1-509 ABN (+)	• 11 ACR
Intelligence • acquisition • electronic attack • electronic protect	 • simulation (UAV, radio intercept/DF) • EW jammers	 • UAV, signals intercept/DF • EW jammers • COMSEC	 • UAV, signals intercept/DF • EW jammers • COMSEC	 • UAV, signals intercept/DF • EW jammers • COMSEC
Maneuver • forces • aviation (fixed) • aviation (rotary wing)	 • simulated up to corps level • simulated • simulated	 • heavy regiment w/div assets • USAFE— CAS, AI, EW cbt, CDS, air drop • attack helo, med lift, 1xBn AASLT	 • infantry regiment/brigade w/div assets • Air Warrior I— CAS, AI, EW cbt, CDS, air drop, SOF • attack helo, med lift, 1xBn AASLT	 • heavy regiment (+) w/div assets • Air Warrior— CAS, AI, EW cbt, CDS, air drop, SOF • attack helo, med lift, 1xBn AASLT
Fire support • division assets	• simulated up to front level	• live FA Bn and computer simulation • MRL btry, counterfire radar	• live FA btry and computer simulation • MRL btry, counterfire radar	• live FA Bn and computer simulation • MRL btry, counterfire radar
Mobility, countermobility, and survivability	• simulated up to corps	• employ FASCAM by SAWE-RF	• employ FASCAM by SAWE-RF	• employ FASCAM by SAWE-RF
Air defense	• simulated up to front level	• ADA btry w/ASET IV	• ADA btry w/ASET IV	• ADA btry (+) w/ASET IV
Combat service support	• simulated up to corps level	• Co/Bn cbt trains	• Co/Bn cbt trains	• Co/Bn cbt trains
Command and control	• simulated single/multi-channel TACSAT, HF, VHF, UHF	• HF, VHF, SHF-troposcatter	• cellular telephone • HF, VHF, SHF-troposcatter	• HF, VHF, SHF-troposcatter
Battle space array	• limited by model desired by player	• regiment, 15kmX30km	• brigade/ regiment, 15kmX 30km	• regiment, 15kmX30km

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OPFOR Training Scope, Continued

Factor	BCTP	CMTC	JRTC	NTC
Night	• fully incorporated into model	• indiv NODs through first generation TTS	• indiv NODs through first generation TTS	• indiv NODs through first generation TTS
Chemical	• simulation for P/NP chemical, biological and nuclear	• fully integrated smoke, P/NP chemical operations	• fully integrated smoke, P/NP chemical operations	• fully integrated smoke, P/NP chemical operations
SASO	• computer simulation	• guerrilla/ partisan operations	• guerrilla/ partisan operations	• guerrilla/ partisan operations
COB	• computer simulation	• augmentation	• augmentation • fully integrated	• augmentation

Pillars

Introduction

A pillars concept is used for internal CTC Program management use. The five pillars are:
- Mission support (MSN SPT)
- Opposing force (OPFOR)
- Operations group (OPSGP)
- Training facility (TNG FAC) and
- Training unit (TNG UNIT).

Mission support (MSN SPT)

An infrastructure sufficient to support the CTC mission. Mission support is key to quality CTC training. The broad areas of support are as follows:
- Personnel, administrative, and quality of life support to personnel assigned to the OPFOR and OPSGP.
- Direct mission support to the CTCs.
- Direct mission support to the TNG UNITS.
- Environment.

Opposing forces (OPFOR)

A dedicated, realistic OPFOR. The OPFOR provides a thinking, flexible, capabilities- based force for the units that undergo CTC training. The maneuver CTCs' (CMTC, JRTC, and NTC) OPFOR replicates elements of threat divisions, airborne and special operations units, local, and regional forces. The OPFOR at the BCTP consists of a battle staff, supported by computerized semiautomated forces (SAF) who provide a realistic threat to the opposing US corps, divisions, and RC brigades undergoing BCTP training.

Operations group (OPSGP)

A dedicated doctrinally proficient OPSGP containing trained and experienced O/Cs. The OPSGP consists of combined arms subject matter experts (SMEs) known as O/Cs, operations planners/scenario developers, and training analysts who: design tactical training exercises; observe and assess individual and collective training performance; teach, coach, mentor, and train their unit counterparts; and, provide training performance feedback across the seven BOS. The OPSGP develops realistic scenarios for the entire spectrum of military operations. BCTP OPSGP includes an SRO to teach and coach unit commanders and participate in the feedback process.

Training facility (TNG FAC)

A TNG FAC which simulates combat conditions. The TNG FAC consists of:
- Simulated battlefield or operational area, to include land assets.
- Realistic and challenging tactical or contingency-based scenarios.
- Instrumentation.
- Airspace and combat complexes.
- Training analysis and feedback.

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Pillars, Continued

Training unit (TNG UNIT)	Units undergoing CTC training organized for combat. The sponsoring MACOM specifies the organizational troop list for rotational units within the constraints of the CTC Program resourcing.

Training Capability Requirements

Introduction

Training capability requirements are statements of capabilities required for the CTC Program and its CTCs to train warfighters.

Sources—
- Battle Lab concepts
- Center for Army Lessons Learned (CALL)
- CINC Integrated Priorities Lists
- CTC Community
- operational capability requirements and
- opportunities from technology.

Applications—
- articulate requirements to the combat and material developer communities internal and external to the CTC Community
- provide training focus to CTC Program funding and
- used as yardstick for assessing the training merits of individual training efforts and the total CTC Program in aggregate.

MSN SPT	Training Capability Requirements	Means
MS01	Sustainment/training bases. The CTCs must be capable of providing a home to the OPSGP and OPFOR, a work and training base	• AFH/MCA funding • Installation XXI

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Training Capability Requirements, Continued

OPFOR	Training Capability Requirements	Means
OF01	OPFOR. The OPFOR must provide a thinking, flexible, capabilities- based force.	• MTOE supported OPFOR organization • Augmentation (FORSCOM/RC/NG) • OPFOR doctrine • OPFOR modernization

OF02	DIS. The CTCs' OPFOR must be capable of sufficiently operating in a common shared, seamless, synthetic, constructive and virtual environment in order to fully challenge training units.	• Integration of TADSS capabilities into new equipment
		  • constructive
		  • virtual
		• Reconfigurables

OPSGP	Training Capability Requirements	Means
OG01	Training analysis and feedback. O/Cs must be capable of teaching, coaching, mentoring, training, and conducting AARs.	• O/Cs that are branch qualified, certified, experienced, and ODP/EDP supported
OG02	Leader development. The CTCs must be capable of enabling the O/Cs to coach, assess, and develop leaders at all levels and in conjunction with the training unit chain of command in concert with school and unit developmental efforts.	• LTP • O/C training as leader developers • SOF training outreach program (TOP) • TNET • Video teletraining
OG03	Modernization. The CTCs must be capable of providing the training unit with an efficient and effective training system to support training of full-dimensional operations.	• CALL gateway • Classroom XXI • CPX simulation upgrade • CTC instrumentation • Home station work stations • LTP • O/C network • SOF TOP • TNET • Video teletraining
OG04	Network of O/C augmentees. The CTCs will be capable of training Title VII/XI O/Cs and GFRE O/C requirements, and reserve personnel in the regional training brigades and the USAR divisions (exercise).	• O/C academies • Reserve training battalions (RTBs) • Reserve training detachments (RTDs) • USAR divisions (exercise)
OG05	Scenarios. The CTCs must be capable of scenario development for the entire spectrum of military operations.	• CTC instrumentation • Higher HQs replication with all systems • Internetted CTCs • Military/civilian operations planners • TNET

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Training Capability Requirements, Continued

TNG FAC	Training Capability Requirements	Means

TF01	BOS— Intelligence. The CTCs must be capable of:
	• providing a practice field and training analysis and feedback for the execution of intelligence related Army battle dynamic concepts for—
	  • dismounted battle space
	  • early entry lethality and survivability and
	  • mounted battle space
	• providing a practice field (simulate and stimulate generators) and training analysis and feedback for the exercising of intelligence related Battle Command Battle Lab operational capability requirements available to training units at the CTCs
	• providing broadcast intelligence to tactical commanders
	• providing situation development by maintaining, displaying and disseminating the current enemy courses of action analysis and improved exploitation of joint and coalition collections systems
	• providing target development through target value analysis and filters and implementing commander's targeting guidance
	• providing automated weather support to USAF weather forecasters supporting tactical echelons
	• providing brigade commander feedback on ability to pull relevant information, focus and integrate RISTA with the intelligence BOS, technical assets, develop situation awareness, and distribute common picture... horizontally and vertically
	• conducting staff planning processes that demonstrate each staff participant's knowledge of their enemy counterpart's capabilities by time, distance and event
	• providing division IEW functionality
	• providing CI, HUMINT and OPSEC support to tactical echelons
	• supporting TF XXI intelligence BOS principles.
		• Army Intelligence, Electronic Warfare, and Target Acquisition Master Plan
		• ASAS interface with ATCCS/ BFACS/split-based operations/ analysis control element (ACE)/ remote work stations (RWS)/SOF C2/intel distribution systems
		• ATCCS/BFACS interface
		• DISNET 3/Trojan SPIRIT II/Joint Deployable Intel Support System (JDISS)
		• FORSCOM augmentation of CTC OPFOR
		• IMETS
		• Instrumentation
		• Modular semi-automated forces (MODSAF) /modeling and simulation
		• MTOE/TDA changes to CTC-based FORSCOM OPFOR units
		• USARC/ARNG augmentation of CTC OPFOR

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Training Capability Requirements, Continued

TNG FAC	Training Capability Requirements	Means
TF02	BOS— Maneuver. The CTCs must be capable of: • providing a practice field and training analysis and feedback for the execution of maneuver related Army battle dynamic concepts for— • dismounted battle space • early entry, lethality and survivability and • mounted battle space • providing a practice field and training analysis and feedback for the exercising of maneuver related— • Dismounted Battle Space Battle Lab operational capability requirements available to training units at the CTCs • Early Entry, Lethality and Survivability Battle Lab operational capability requirements available to training units at the CTCs and • Mounted Battle Space Battle Lab operational capability requirements available to training units at the CTCs.	• Constructive simulation link with live simulation • Instrumentation system • MOUT training facility • Training area expansion
TF03	BOS— Fire Support. The CTCs must be capable of: • providing a practice field and training analysis and feedback for the execution of fire support related Army battle dynamic concepts for— • dismounted battle space • early entry, lethality and survivability and • mounted battle space • providing a practice field and training analysis and feedback for the exercising of fire support— • Dismounted Battle Space Battle Lab operational capability requirements available to training units at the CTCs	• AFATDS linkage w/AN/TPQ-36/ 37 • AWMDS I/II • DIS connections • EFOG-M • Instrumentation • Naval gunfire CIC

Continued on next page

Training Capability Requirements, Continued

TNG FAC	Training Capability Requirements	Means
TF03 continued	・ Early Entry, Lethality and Survivability Battle Lab operational capability requirements available to training units at the CTCs and • Mounted Battle Space Battle Lab operational capability requirements available to training units at the CTCs.	
TF04	BOS— Air Defense. The CTCs must be capable of: ・ providing a practice field and training analysis and feedback for the execution of air defense related Army battle dynamic concepts for early entry, lethality and survivability and • providing a practice field and training analysis and feedback for the exercising of air defense related Early Entry, Lethality and Survivability Battle Lab operational capability requirements available to training units at the CTCs.	• ASET IV • AWMDS • DIS connection • Instrumentation
TF05	BOS— Mobility, Countermobility, and Survivability. The CTCs must be capable of: ・ providing a practice field and training analysis and feedback for the execution of mobility and survivability related Army battle dynamic concepts for— • dismounted battle space • early entry, lethality and survivability and • mounted battle space ・ providing a practice field and training analysis and feedback for the exercising of maneuver related— • Dismounted Battle Space Battle Lab operational capability requirements available to training units at the CTCs • Early Entry, Lethality and Survivability Battle Lab operational capability requirements available to training units at the CTCs • Mounted Battle Space Battle Lab operational capability requirements available to training units at the CTCs.	• BLUEFOR mines/SAWE • FASCAM • Instrumentation • WAM

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Training Capability Requirements, Continued

TNG FAC	Training Capability Requirements	Means

TF06	BOS— Combat Service Support (CSS). The CTCs must be capable of:
	• providing a practice field and training analysis and feedback for the execution of operational and tactical logistics related Army battle dynamic concepts for—
	  • combat service support
	  • dismounted battle space
	  • early entry, lethality and survivability
	  • mounted battle space
	• providing a practice field and training analysis and feedback for the exercising of mobility and survivability related—
	  • Combat Service Support Battle Lab operational capability requirements available to training units at the CTCs
	  • Dismounted Battle Space Battle Lab operational capability requirements available to training units at the CTCs
	  • Early Entry, Lethality and Survivability Battle Lab operational capability requirements available to training units at the CTCs and
	• Mounted Battle Space Battle Lab operational capability requirements available to training units at the CTCs.
		• Army Strategic Logistics Plan
		• EAD CSS training
		• RC/ARNG combat service support integration
		• RC DS/GS maintenance training
		• RSOI
		• TOFM
		• USAF assets

TF07	BOS— Command and Control. The CTCs must be capable of: • providing a practice field and training analysis and feedback for the execution of the Army battle dynamic concept for battle command and • providing a practice field and training analysis and feedback for the exercising of Battle Command Battle Lab operational capability requirements available to training units at the CTCs.	• AARs • ABCS (-) integration • D-180 seminar • LTP seminars • Post-rotation seminars • SMECS/SMIFS
TF08	Communications architecture. The CTCs must be capable of internal horizontal/ vertical seamless communications which provide voice, data, graphics, imagery, and video information for all battlefield operating systems.	• CTC instrumentation • Fiber optics integration • Force XXI communications systems • Spread spectrum technology

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Training Capability Requirements, Continued

TNG FAC	Training Capability Requirements	Means
TF09	CTC network. The CTCs must be capable of communicating between and among each other, the rest of the CTC community, the battle labs, the proponent schools, training developers, material developers, and the training units at home station for the passing of voice, data, graphics, imagery, and video information.	• Army knowledge library • CALL Gateway • Classroom XXI • CTC common data base • CTC linkages • Internetted CTCs • TNET
TF10	Data collection. The CTCs must be capable of obtaining timely and accurate information from available sources on training units throughout the CTCs' battlefields and the depth of the training unit's commander's battle space.	• CTC common data base • WarMod XXI
TF11	Digitization. The CTCs must be capable of training a force operating on a digitized battlefield and providing/accessing an integrated digital training network that supports warfighting systems.	• Bandwidth management • Data transmission techniques • Electromagnetic spectrum management policies • HTI initiatives
TF12	DIS. The CTCs must be capable of operating in a common, shared, seamless, synthetic, open information environment, and operating with standardized PDUs, software and hardware.	• AWEs • CCTT • Technology insertion • WARSIM 2000

TF13	Integration. The CTCs must be capable of providing the training units with a sufficient seamless integration of modeling and simulation into the synthetic environment grid such that: training units are able to use tactical equipment in the distributed simulation environment, tactical equipment functions the same in tactical and simulated environments, and decisions required of the training unit are the same in tactical and simulated environments and realistic/relevant training feedback provided	• DIS/HLA compliant simulations
		• Distributed computing environment of ABCS
		• Migration to future TADSS capabilities/ requirements:
		  • synthetic environment (SE)
		  • DIS
		  • standard data bases (terrain, enemy, icons)
		  • fully embedded training
		  • fully, integrated, Total Army system
		  • reconfigurables
		• Training facility kept in pace with warfighter modernization

TF14	Lessons learned program. The CTCs must be capable of collecting all significant lessons learned information; analyzing the information to identify recurring weaknesses; and disseminating the information to all potential users.	• AARs • AIMS-R • ASAT • CALL Gateway • CALL data base • SATS • STAARS • THPs, to include Janus THP

Continued on next page

Training Capability Requirements, Continued

TNG FAC	Training Capability Requirements	Means

TF15	Modeling and simulation. The maneuver CTCs must be capable of providing cost effective training through sufficient modeling, live simulation, and linked constructive simulations. The BCTP must be capable of providing cost effective training through sufficient modeling, constructive simulation, and linked live and virtual simulations. Specific simulation linkages identified to date are:
	• BCTP/NSC/Dismounted Battle Space Battle Lab/MTWS.
	• JRTC/Dismounted Battle Space Battle Lab.
	• NTC/29 Palms/Nellis AFB/ Dismounted Battle Space Battle Lab, Mounted Battle Space Battle Lab.
		• CBS-MTWS linkage
		• CTC common data base
		• Distributed computing environment of ABCS
		• Expanded objective assessment of warfighter systems on the CTC battlefield
		• JRTC LTP/CPX (TF 3)
		• Leader development training for O/Cs
		• Migration to future TADSS capabilities/ requirements:
		  • standard data bases (terrain, enemy, icons)
		  • fully embedded training
		  • fully, integrated, Total Army system
		  • reconfigurables
		• New systems training with AWEs
		• Synthetic environment designated links
		• Warfighter XXI

TF16	Modernization. The CTCs must be capable of providing the training unit with an efficient and effective training system to support training of full-dimensional operations.	• Battle lab concept • DIS compliant joint interoperability among CTC-IS via gateways or translators • TES training, TADSS, training instrumentation, and test instrumentation integration/compatibility • Training development network
TF17	Sensors. The CTCs must be capable of timely and accurate sensor information from available sources of training units throughout the CTC battlefield.	• Sensor capable CTC instrumentation
TF18	Simulated battlefield or operational area. The CTCs must be capable of providing exploration of the entire spectrum of military operations.	• ATEs • AWEs • Battle Labs • Defense Test and Training Steering Group • Live fire • MOUT • New systems training in coordination with AWEs • SASO • Training and testing community integration
TF19	Training development network. The CTCs must be capable of interactive access to a training development network to provide performance feedback.	• CALL Gateway

Continued on next page

Training Capability Requirements, Continued

TNG FAC	Training Capability Requirements	Means
TF20	Training land assets. The CTCs must be capable of managing training land assets to sustain their capability to support CTC training objectives.	• Conservation/compliance program • Integrated Natural Resource Management Plan (INRMP) • ITAM • Land acquisition
TF21	Simulation Links. The CTCs must be capable of operating in a common shared, seamless, synthetic, live, constructive, and virtual environment in which to fully challenge training units.	• Simulation links

Simulation Links- Internal (CTC Proper[1])			
From/To	Live	Constructive	Virtual
Live		CMTC JRTC NTC	CMTC NTC
Constructive	CMTC JRTC NTC		CMTC
Virtual	CMTC NTC	CMTC	

Simulation Links- External (Entering/Leaving the CTC Proper[1])			
From/To	Live	Constructive	Virtual
Live		CMTC[2] NTC[3]	CMTC[2] NTC[3]
Constructive		BCTP CMTC[2]	
Virtual			

[1]Includes the Grafenwoehr Training Area for CMTC.
[2]STOW.
[3]Outgoing only.

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Training Capability Requirements, Continued

TNG FAC	Training Capability Requirements	Means

TU01	Brigade operations. The CTCs must be capable of exercising brigade operations on the CTC battlefields, both vertically (multi-echelon) and horizontal (across components in the force), and in joint and combined environments.	• Electromagnetic spectrum
		• Environmental measures
		  • air
		  • air space
		  • water

TU02	Training program. The CTCs must be capable of providing the training unit with a training system that meets validated needs and approved operational requirements.	• AIMS-R
		• ASAT
		• Conferences
		  • air warrior (AW)
		  • CTC scheduling
		  • JAAT
		• CTC scheduling process with ATEs, AWEs, and CCTT initiatives
		• Joint Acquisition Management Board (JAMB)
		• Joint Executive Committee (JEC)
		• Joint integration
		• Joint Users Committee (JUC)
		• SATS

Disciplined Growth Policy

Introduction	This topic reduces to writing a disciplined growth policy for the CTC Program
Objective	The CTC Program is following a disciplined growth policy as a resource management tool.
Operating principles	This policy is translated into an operating environment that places all requirements, both existing and proposed, into one of three categories— sustainment (core requirements that maintain approved missions and capabilities) replacement (deferrable requirements that either modernize, correct identified shortfalls/ deficiencies, or reconcile inefficient equipment/contracts) and growth/new initiatives (new mission requirements/capabilities).
Approval	Approval authorities— Sustainment: CTC CoC, CTC Program manager, Training GOSC, HQDA. Replacement: CTC CoC, CTC Program manager, Training GOSC, HQDA. Growth/New Initiatives: HQDA.
Baseline requirements	The requirements contained in the approved CTC MP, V.1.0, represent the baseline requirements for the CTC Program. Subsequent versions will reflect changes by the appropriate approval authority.
Subsequent changes	Approved changes are recorded and placed in the CTC MP as loose-leaf inserts.
Priority bands	The CTC Program has adopted a three banded platform for prioritization of CTC Program initiatives. In decreasing priority, they are: • most critical (what is absolutely needed for CTCs to stay relevant during life of the POM) • critical (other critical CTC requirements) and • necessary and consistent (those elements necessary and consistent with the CTC Program mission.

Chapter 2

Battle Command Training Program (BCTP)

Overview

Introduction

This chapter contains the Battle Command Training Program (BCTP) segment of the CTC Master Plan.

Objectives

This chapter provides the following information on Battle Command Training Program (BCTP) rotations, Brigade Command and Battle Staff Training (BCBST) rotations, and Operations Group D (OPSGP D) support of joint training/exercises—

- provide the mission
- provide the vision 2003
- provide the priorities and
- provide the initiatives.

In this chapter

This chapter consists of page inserts for periodic updating by the BCTP after approval by CTC executive management**.**

Continued on next page

BCTP Mission, Vision 2003, Priorities, Initiatives

Introduction

This topic provides the mission, vision, priorities, and initiatives of the BCTP.

BCTP mission

BCTP conducts realistic, stressful training for Joint Task Force (JTF), corps, division, and brigade commanders, and their staffs, to assist the CSA in fulfilling his training responsibility to prepare Army units to execute full dimensional operations.

BCTP vision 2003

Training scope/environment. Focus is at the division and corps operating in a mid to high level of intensity using the Corps Battle Simulation (CBS). BCTP rotations consist of a Battle Command Seminar, Warfighter Exercise (WFX), and either a Take Home Package (THP) for AC units or Proficiency Sustainment Package (PSP) for ARNG units. Battle Command Seminars are conducted over a five day period in the Permanent Seminar Facility (PSF) located in Bell Hall, on Fort Leavenworth, KS. AC Warfighter exercises are conducted at the unit home station. ARNG Warfighters will be conducted at the Leadership Development Center (LDC), adjacent to Fort Leavenworth, KS. Division WFXs are five days in length and Corps WFXs are seven days in length. Take home packages consist of a copy of all the After Action Review (AAR) videos and the Final Exercise Report (FER). The THP is provided to the training unit NLT 30 days after the conclusion of the WFX. Proficiency Sustainment Packages are similar to the THP but also provide detailed information to assist the ARNG commander in sustaining training proficiency.

Pillars

Mission Support (MSN SPT). The program will be headquartered at Fort Leavenworth, KS. The installation will provide personnel, administrative, logistical, and quality of life support to BCTP personnel. Fort Leavenworth will provide mission support to training units executing the Battle Command Seminar phase of BCTP. The training unit will provide for their own mission support during the WFX portion of their rotations.

World Class Opposing Force (WCOPFOR). The WCOPFOR will provide a thinking, flexible, capabilities-based opponent for BCTP rotations. WCOPFOR exercise support will be provided by the National Simulation Center (NSC) under the control of the WCOPFOR (Forward) cell operating out of the training unit's Battlefield Simulation Center (BSC). The BSC's are located on the training unit's installation.

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BCTP Mission, Vision 2003, Priorities, Initiatives, Continued

BCTP vision 2003 (continued)

Operations Group (OPSGP). BCTP will provide two OPSGPs to provide the capability to execute BCTP rotations for corps, division, Command and General Staff College PRAIRIE WARRIOR exercise, and support of the Army's Advanced Warfighting Experiment(s) (AWE). Each OPSGP will be manned with BCTP certified Observer Controllers (OC). All OCs will be active duty MEL4 branch qualified field grade officers who are subject matter doctrinal experts in their respective fields. The OPSGPs will provide exercise design/control expertise and functions through a combination of AC officers and contractor personnel in operations and exercise control areas. The supporting contractors will provide senior observers (retired general officers personally selected by the CSA), workstation controllers, analysts for informal and formal AARs preparation, operations and exercise controllers, orders writing expertise, and technical support personnel.

Training facility. BCTP seminars will be conducted in the Permanent Seminar Facility (PSF) located in Bell Hall, on Fort Leavenworth, KS. ARNG Battle Command Seminars will be conducted in the Leadership Development Center (LDC), located adjacent to Fort Leavenworth, KS. The NSC and simulation centers army-wide will support the WFXs. The Corps Battle Simulation (CBS) will continue to be the primary WFX simulation driver until replaced by the WARSIM 2000 simulation. WARSIM 2000 is tentatively scheduled to be fielded to the Army by 2003.

Training Unit. Training units will include corps and both AC and ARNG divisions. These units will be task organized based on MACOM guidance.

BOS. Battlefield Operating Systems (BOS) or their doctrinal replacement will be represented in the functionality of CBS and WARSIM 2000. Contract analysts and workstation controllers will ensure that desired effects in each BOS are realistically replicated in CBS and WARSIM 2000. OPSGP military personnel supported by contract personnel will monitor the simulation continuously to determine if additional functionalities are needed.

BCTP priorities

- Continue to provide realistic stressful training to division and corps commanders and their staffs.
- Continuing to maintain CBS as a relevant simulation until the fielding of WARSIM 2000. CBS sustainment must be funded until WARSIM 2000 has been fully tested and fielded to the Army. Sustainment of CBS is critical to the success of the program and critical if WARSIM 2000 is delayed.
- Improvements to the After Action Review System (AARS).
- Integration of deployment operations (DEPEX), information operations (IO), and fielding of new systems (i.e., unmanned aerial vehicles, Paladin, etc.).

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BCTP Mission, Vision 2003, Priorities, Initiatives, Continued

BCTP initiatives	• CBS sustainment (line-of-sight, movement, terrain improvement, etc.). • Information Operations. • Deployment Operations.

BCBST Mission, Vision 2003, Priorities, Initiatives

Introduction

This topic provides the mission, vision, priorities, and initiatives of the BCTP.

BCBST mission

Conduct realistic and challenging training for selected active component and Army National Guard maneuver Brigade and Battalion commanders and their battle staffs.

BCBST vision 2003

Training scope/environment. Focus at brigade level (ARNG separate/enhanced, strategic brigades, divisional brigades, and selected AC brigades) in mid to high level intensity of conflict using the Brigade Battle Simulation (BBS). BCBST rotations consist of a Battle Command Seminar, a Brigade Warfighter Exercise (BWFX), and either a Take Home Package (THP) for AC units or Proficiency Sustainment Package (PSP) for ARNG units. Battle Command Seminars are conducted over a five day period in the Leadership Development Center (LDC), adjacent to Fort Leavenworth, KS. BWFXs will be conducted at the designated training site for the training unit. BWFXs are 30 hours in length. Take home packages consist of a copy of all the After Action Review (AAR) videos and the Final Exercise Report (FER). The THP is provided to the training unit NLT 45 days after the conclusion of the BWFX. Proficiency Sustainment Packages are similar to the THP but also provide detailed information to assist the ARNG commander in sustaining training proficiency.

Pillars

Mission Support (MSN SPT). The program will be headquartered at Fort Leavenworth, KS. The installation will provide personnel, administrative, logistical, and quality of life support to BCBST personnel. Fort Leavenworth will provide mission support to training units executing the Battle Command Seminar phase of BCBST. The training unit will provide for their own mission support during the WFX portion of their rotations.

World Class Opposing Force (WCOPFOR). The WCOPFOR will provide a thinking, flexible, capabilities-based opponent for BCBST rotations. OPSGP C has its own organic WCOPFOR cell that operates from the battle simulation center at the exercise site.

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BCBST Mission, Vision 2003, Priorities, Initiatives, Continued

BCBST vision 2003 (continued)

Operations Group (OPSGP). BCTP will provide one OPSGP (OPSGP C) to provide the capability to execute BCBST rotations for ARNG separate/enhanced, strategic, and divisional brigades and select AC brigades. OPSGP C will be manned with BCBST certified Observer Trainers (OT). All OT's will be active duty branch qualified officers who are subject matter doctrinal experts in their respective fields. OPSGP C will provide exercise design/control expertise and functions through a combination of AC officers and contractor personnel in operations and exercise control areas. The supporting contractors will provide senior observers (retired general officers personally selected by the CSA), workstation controllers, analysts for informal and formal AARs preparation, operations and exercise controllers, orders writing expertise, and technical support personnel.

Training facility. ARNG Battle Command Seminars will be conducted in the Leadership Development Center (LDC), located adjacent to Fort Leavenworth, KS. The NSC and simulation centers army-wide will support the BWFXs. The Brigade Battle Simulation (BBS) will continue to be the primary BWFX simulation driver until replaced by the WARSIM 2000 simulation. WARSIM 2000 is tentatively scheduled to be fielded to the Army by 2003.

Training Unit. Training units will include both selected AC and ARNG brigades. These units will be task organized based on MACOM guidance.

BOS. Battlefield Operating Systems (BOS) or their doctrinal replacement will be represented in the functionality of BBS and WARSIM 2000. Contract analysts and workstation controllers will ensure that desired effects in each BOS are realistically replicated in BBS and WARSIM 2000. OPSGP military personnel supported by contract personnel will monitor the simulation continuously to determine if additional functionalities are needed.

BCBST priorities

- Raise the quality of seminars by improving the brigade and battalion operations orders and associated products.
- Raise the quality of the brigade's ability to execute offensive and defensive operations in a mid-to high intensity level of combat.
- Sustain the realism and effectiveness of the BBS simulation while preparing the organization for the fielding of WARSIM 2000.

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BCBST Mission, Vision 2003, Priorities, Initiatives, Continued

BCBST initiatives

- Develop distance learning products to help brigades arrive at the seminar well grounded in the military decision making process and brigade tactical operations.
- Improve the quality of the seminar presentations and the AARs through the maximum integration of high technology training devices and computer generated products. The goal is a completely interactive CD-ROM based, take home sustainment training package.
- Through the Observer Training (OT) Academy raise the standards and level of battle staff sustainment training provided by exercise divisions.

BCTP Operations Group D Mission, Vision 2003, Priorities, Initiatives

Introduction

This topic provides the mission, vision, priorities, and initiatives of the BCTP Operations Group D.

BCTP operations group D mission

Prepare Army commanders and staffs to operate in a Joint environment as either the Army Component or as the nucleus for a Joint Task Force (JTF) headquarters. Provide input for the improvement of joint doctrine, organizations, training, material, leaders, and soldiers. Assist military organizations during contingency operations as directed.

BCTP operations group D vision 2003

Training scope/environment. Focus at army, corps, and division level. Consistent with the force packaging nature of JTF operations, a tailored team of subject matter experts and observer/trainers (O/T) can be provided to assist and train unit leaders and staffs. OPSGP D is capable of providing seminars to units at their locations on a variety of subjects. These include, but are not limited to: Forming the JTF, JTF Perceptions, Boards, Centers, and Agencies, and Decision making. OPSGP D is capable of observing Army organizations during Joint exercises, in all levels of warfare, as they plan, prepare, and execute their assigned mission(s). When corps fight as JTFs, OPSGP D will augment OPSGPs A and B during the WFX phases of the BCTP rotation.

Pillars

Mission Support (MSN SPT). The program will be headquartered at Fort Leavenworth, KS. The installation will provide personnel, administrative, logistical, and quality of life support to BCTP personnel.

World Class Opposing Force (WCOPFOR). The opposing force (OPFOR) is normally provided by the Commander in Chief (CINC) of the Unified Command conducting the Joint exercise, or the exercise unit's higher headquarters. The BCTP WCOPFOR will provide the opposing force for all BCTP rotations.

Operations Group (OPSGP). OPSGP D will man one OPSGP with the capability to deploy an advanced party of Operating Systems experts NLT 24 hours after notification. At that time the OPSGP will provide initial assistance and conduct an assessment of the requesting organization's training/support requirements. OPSGP D will provide a team of SMEs tailored to support the requesting organization in NLT 72 hours after notification. Each O/T deployed will be a joint and Army doctrinal expert within their respective Operational Operating System. OPSGP D's supporting contractor will provide senior observers, analysts, and technical support as required.

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BCTP Operations Group D Mission, Vision 2003, Priorities, Initiatives, Continued

BCTP operations group D vision 2003 (continued)

Training facility. Seminars will normally be conducted at unit locations or centers under the control of the Joint Chiefs of Staff, the Unified Commands, or Army installations designated to support the exercises. Operation of these simulation centers is an owning command responsibility. The confederation of simulation models will be used as the primary driver of joint exercises until they are replaced by the Joint Simulations (JSIMS) models in the future. OPSGP D has the responsibility to develop the capability to link into these simulations to extract data for analysis and exercise support.

Training Unit. Training units will include armies, corps, and divisions. These units will be capable of operating as the nucleus of a JTF headquarters or the ARFOR within a JTF. Staffs are organized base on unit, Unified Command and/or JCS guidelines, or METT-T factors of a designated scenario. Train other organizations as directed.

BOS. OPSGP D uses the Operational Operating System instead of the Battlefield Operating Systems (BOS). The Operational Operating System or their doctrinal replacement will be represented in the functionality of CBS and the JSIM simulations. Contract analysts and workstation controllers will ensure that desired effects in each BOS are realistically replicated in CBS and JSIMs. OPSGP military personnel supported by contract personnel will monitor the simulation continuously to determine if additional functionalities are needed.

BCTP operations group D priorities

1. Improve conduct of JTF training seminars by developing a self contained seminar program.

2. Improve exercise scenarios to stress JTF and ARFOR participation in the Decision making process.

3. Improve mission analysis procedures to ensure the appropriate team and equipment is deployed to support all facets/requirements of a mission or exercise.

4. Improve the fidelity and utility of the AAR systems for joint exercises which use the confederation of models.

5. Develop a TDA with specialty, rank, and experience requirements appropriate to operations at the JTF level. Obtain previously Joint qualified O/Ts for OPSGP D and have the BCTP OPSGP D TDA coded as Joint duty billets.

6. Add a dedicated Armed Forces Staff College position to the TDA.

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BCTP Operations Group D Mission, Vision 2003, Priorities, Initiatives, Continued

BCTP operations group D initiatives

1. Develop a scheduling process that facilitates synchronization of Army training calendars with other services and the JCS.

2. Recommend assignment of an other than Army 06 as deputy commander of OPSGP D and have all O/T positions coded on the TDA as Joint duty billets. Note: The recommendation is to add more Joint duty billets to the Army for OPSGP D and not take any existing billets away from other organizations.

3. Establish a reliable pool of qualified O/T augmentees throughout the Department of Defense (DoD).

BCTP Initiative Roll-up

Initiative roll-up

The table below rank orders BCTP initiatives by funding source.

RDA Initiatives	OMA Initiatives	Other Initiatives
CBS sustainment (BCTP)	Information operations (BCTP) Deployment operations (BCTP) Distance learning (BCBST) Sustainment training package (BCBST) Battle staff sustainment training (BCBST)	Scheduling process (BCTP OPSGP D) Joint duty billets (BCTP OPSGP D) O/T augmentee pool (BCTP OPSGP D)

Chapter 3

Combat Maneuver Training Center (CMTC)

Overview

Introduction

This chapter contains the Combat Maneuver Training Center (CMTC) segment of the CTC Master Plan.

Objectives

This chapter will, for the CMTC—

- provide the mission
- provide the vision 2003 and
- provide the initiatives.

In this chapter

This chapter consists of page inserts for periodic updating by the CMTC after approval by CTC executive management.

Continued on next page

Mission

Introduction

This topic provides the mission of the CMTC.

Mission (what we do and who we do it for)

In a forward deployed environment, the Combat Maneuver Training Center provides joint and combined arms training focused on developing the leadership of battalion task forces in the mid and high intensity environments. The CMTC also conducts training for US and Allied brigades in both combined arms and/or Stability and Support Operations and assists others to train echelons above brigade in Army and joint operations.

Continued on next page

CMTC Vision 2003

Introduction

This topic provides the CMTC vision for the year 2003.

CMTC vision 2003

- The Combat Maneuver Training Center, in the year 2003, will be USAREUR's premier training facility replicating with fidelity the intense warfare and complex battlefields of the future. The CMTC will be capable of conducting training simultaneously and seamlessly in live, constructive, and virtual environments.

- The CMTC will train maneuver task forces, brigades, representative units from all battlefield operating systems, and selected allied units. Both USAREUR based forces and CONUS based forces will train at the CMTC.

- The CMTC Instrumentation System will continue to advance through planned improvements and life cycle replacements of its hardware and software. Fully modernized with near state-of-the-art equipment, the CMTC will be able to track units, track battlefield events, replicate the effects of all weapon systems, and collect and analyze data to provide the most comprehensive training feedback possible. Training unit leadership will participate in seminars and simulations in preparation for live training. Units will conduct live fire exercises, in a fully instrumented and O/C environment at the Grafenwöehr Training Area as a part of their CMTC rotation experience. Force-on-force training will be supported with a world class OPFOR. The OPFOR's fleet of aging M60A3 tanks and M113A2 APCs will begin to be replaced with a more modern operational or surrogate OPFOR vehicle. The CMTC will be capable of fully integrating virtual and constructive simulations with live training as required.

- Training facilities will have been improved over time in order to provide both permanent party soldiers and training unit soldiers with modern life support facilities. Improvements to the training area infrastructure will provide soldiers with a healthy work environment and high quality family support facilities making Hohenfels an assignment of choice. Careful and thoughtful use of the training area and limited resources will achieve a balance and harmony between training requirements and the environment thus ensuring the long term use of the training area.

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BLUEFOR training scope

The following table lays down the BLUEFOR training scope for current and FY03 states.

BLUEFOR training scope	Now	2003
Focus	Rotational training unit USAREUR: • Maneuver task forces • Divisional cavalry squadrons • Aviation battalions • Field artillery battalions • Brigade headquarters and staffs • Brigade CS and CSS	Rotational training unit USAREUR: • Maneuver task forces • Divisional cavalry squadrons • Aviation battalions • Field artillery battalions • Brigade headquarters and staffs • Brigade CS and CSS • Division battle staffs • JTF staff mission rehearsals
Scope of training	• Full spectrum of combat operations • Embedded peace support operations • Complex battlefield • Mission rehearsals for contingency Operations	• Full spectrum of combat operations • Embedded peace support operations • Complex battlefield • Mission rehearsals for contingency operations
Unit integration	• Civil Affairs (CA) elements • Psychological Operations (PSYOP) elements • Special Forces elements • NATO allies	• Civil Affairs (CA) elements • Psychological Operations (PSYOP) elements • Special forces Elements • NATO allies

Continued on next page

CMTC Vision 2003, Continued

BLUEFOR training scope	Now	2003

Capabilities	• One Bn/TF force-on force training
	• Two Bn/TF simulation training
	• CMTC Instrumentation System
	• SAWE-RF/MILES II
	• 2 drop zones
	• Short Take Off and Landing (STOL) Strip
	• One MOUT town (32 buildings), four MOUT villages (4-8 buildings)
	• UN Compound
	• 2 base camps
		• One Bn/TF force-on force training
		• Two Bn/TF Simulation training
		• One Bn/TF live fire exercise
		• CMTC Instrumentation System
		• SAWE-RF/MILES II
		• 2 drop zones
		• Improved STOL Strip (C130 capable)
		• Airfield (STOL) MOUT site
		• One MOUT town (32 buildings), four MOUT villages (4-8 buildings)
		• UN Compound
		• 3 base camps
		• Maneuver Corridors
		  • Southeast
		  • Northwest
		  • South-central
		• Improved MOUT site (Frieholser)

Clients	• 5 AC Brigades • 12 AC Armor/Mechanized Infantry Battalions • 1 AC Airborne Battalion • 2 AC Divisional Cavalry Squadrons • 4 AC Attack Helo Battalions • 2 AC Aviation Lift Battalions • 5 AC Field Artillery Battalions	• 5 AC Brigades • 12 AC Armor/Mechanized Infantry Battalions • 1 AC Airborne Battalion • 2 AC Divisional Cavalry Squadrons • 4 AC Attack Helo Battalions • 2 AC Aviation Lift Battalions • 5 AC Field Artillery Battalions
Throughput	• 15 US task forces • 6 Bundeswehr (German Army) task forces	• 15 US task forces • 6 Bundeswehr (German Army) task forces

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CMTC Vision 2003, Continued

CMTC pillars

Training at CMTC is supported by five pillars: Mission Support (MSN SPT), Opposing Force (OPFOR), Operations Group (OPSGP), Training Facilities (TNG FAC), and the Training Unit (TNG UNIT).

CMTC pillar	Now	2003

MSN SPT	• 282nd BSB provides to CMTC:
	  • personnel
	  • administrative support
	  • quality of life
	• 282nd BSB provides to the TNG UNIT:
	  • life support
	  • billeting
	  • supply
	  • MEDEVAC
		• 282nd BSB provides to CMTC:
		  • personnel
		  • administrative support
		  • quality of life-
		  • additional on-post housing
		  • additional off-post housing
		  • central wash rack facility
		  • improved O/C facilities
		• 282nd BSB provides to the TNG UNIT:
		  • life support
		  • renovated field dining facilities
		  • billeting
		  • supply
		  • TISA
		  • MEDEVAC

OPFOR	• 1-4th Infantry Battalion replicates:
	  • elements of threat divisions (MRR)
	  • M60A3 as T72
	  • M113A2 as BMP
	  • UH1 as HIND
	  • regular forces
	  • irregular forces and terrorists
	• Government civilians provide civilians on the battlefield
	• Variety of commercial and tactical vehicles for complex battlefield
		• 1-4th Infantry Battalion replicates:
		  • elements of threat divisions (MRR)
		  • M60A3 as T-72 (end of life cycle)
		  • M113A2 as BMP (end of life cycle)
		  • menu select mines
		  • menu select hand held anti-tank systems
		  • regular forces
		  • irregular forces and terrorists
		  • open market hand held DF/jammers & listening devices
		• Government civilians provide civilians on the battlefield
		• OPFOR participation in simulations
		• Variety of commercial and tactical vehicles for complex battlefield

Continued on next page

CMTC Vision 2003, Continued

CMTC pillar	Now	2003

OPSGP	• O/Cs:
	  • doctrinally proficient
	  • branch qualified
	  • 2 maneuver TF O/C Tms
	  • 1 brigade O/C Tm
	  • 1 artillery O/C Tm
	  • 1 forward support battalion O/C Tm
	  • 1 aviation O/C Tm
	• Writing Tms:
	  • script rotations based on division commander's guidance and unit METL
	  • man the exercise control DTOC
	• Training analysts:
	  • support force on force battle analysis
	  • assist O/Cs in providing training performance feedback and preparing and presenting AARs
		• O/Cs:
		  • doctrinally proficient
		  • branch qualified
		  • 2 maneuver TF O/C Tms
		  • 1 brigade O/C Tm
		  • 1 artillery O/C Tm
		  • 1 forward support battalion O/C Tm
		  • 1 aviation O/C Tm
		  • 1 live fire O/C Tm (FY98)
		• Writing Tms:
		  • script rotations based on division commander's guidance and unit METL
		  • man the exercise control DTOC
		• Training analysts:
		  • support force on force battle analysis
		  • assist O/Cs in providing training performance feedback and preparing and presenting AARs
		  • support live fire battle analysis

TNG FAC	• 40,000 acres (178 square kilometers)
	• CMTC-IS:
	  • MILES II
	  • SAWE-RF
	  • GPS
	  • collects and records battle events using audio and video media
	  • ASET IV
	• Simulation Center with BBS capability
	• Battlefield effects through 8530th CSG
		• 40,000 acres (178 square kilometers)
		• CMTC-IS (upgraded in 2000):
		  • MILES II
		  • SAWE-RF
		  • GPS
		  • collects and records battle events using audio and video media
		• Live fire training using a deployable IS at GTA
		• Enhanced simulation center with constructive, virtual, and live linkages
		• Enhanced battlefield effects through contractor/local national personnel
		• DIFCUE/MGSS
		• Complete aviation integration using ASET IV and AGES II

Continued on next page

CMTC Vision 2003, Continued

CMTC pillar	Now	2003
TNG UNIT	• Task force to brigade level exercises emphasizing training for the maneuver battalion task force and division cavalry squadron in operations that span the spectrum of combat • Units deploy to the CMTC with elements of CS and CSS units tailored to meet unit needs and scenario requirements	• Task force to brigade level exercises emphasizing training for the maneuver battalion task force and division cavalry squadron in operations that span the spectrum of combat • Capability to conduct exercises that integrate brigade, division and corps level units via constructive and virtual simulations and the Synthetic Theater of War (STOW) • Units conduct a live fire event with O/Cs at Grafenwoehr Training Area as an integral part of the CMTC experience • Capability to seamlessly link constructive, virtual and live training conducted at geographical separated

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CMTC Initiatives

Introduction

The CMTC must remain viable in an ever-changing military and political atmosphere, while providing training for the US Army and selected Allies. Flexibility of mission, coupled with innovation, and adequate resources are essential to meeting the CMTC mission.

Pillar approach

Ensuring the CMTC's continued viability and relevance in today's changing European theater requires an integral approach to maintenance and improvement of each of the five pillars: MSN SPT, OPFOR, OPSGP, TNG FAC, and TNG UNIT. Each of the pillars must be addressed to provide for an orderly advancement and developmental cohesiveness toward expanded future operations.

MSN SPT

CMTC MSN SPT is essential to supporting the overall mission. During the preceding decade improvements to the pre-World War II infrastructure resulted in modernization of procedures, work force efficiency and functional modernization. Staying abreast of the current situation requires adequate and efficient support mechanisms. To ensure adequate support, appropriate improvements must be planned and programmed to occur by the year 2003.

Live fire exercise

A key component of CMTC 2003 will be instrumented live fire training exercises conducted on existing terrain at Grafenwoehr Training Area. Utilizing a deployable Live Fire Instrumentation System fielded in FY03-04, CMTC O/Cs will be able to provide objective feedback and AARs to USAREUR Task Forces. Training will incorporate a system similar to SAWE/MILES II instrumentation to provide location and engagement information. Estimated cost is $15M (ROM).

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CMTC Initiatives, Continued

Non-tactical equipment maintenance

- Maintenance of the non-tactical fleet and other equipment in a remote location has specific implications for the CMTC community. Standard GSA models relying on a "floor" for average mileage per vehicle is not practical as each rotation places different demands on the vehicle fleet based on division training guidance for player units. Cost of maintaining a NTV fleet is OPTEMPO-based based on mission usage.

- Critical shortages of qualified mechanics dictates continued reliance on Reserve Component (RC) personnel, serving under the Overseas Deployment for Training (ODT) plan. The Installation Material Maintenance Activity (IMMA), prime employer of RC, would not be able to function without these personnel. RC Commands have funding for Annual Training, but not for the transportation to CMTC. Average travel stipend is $900.00 per participant. Estimated cost per fiscal year is $1M.

Transportation services

As in-house maintenance assets decrease, the cost to properly maintain government vehicles through contract from the commercial sector increases exponentially.

Maintenance and repair (real property maintenance) and minor construction (RPM)

Several programs exist under these parameters, handled by the DEH. Environmental, Command Security Upgrade Program (CSUP), MSN SPT OMA, and mission OMA projects are included in this area.

- The CMTC's realistic training and high OPTEMPO places severe strain on the Hohenfels environment. The CMTC environmental program includes land management, hazardous waste management, recycling programs, geographic resources analysis support system and monitoring of water quality. The current program costs $5M (FY95 constant) and will sustain current operations. Resourcing is directed from the MDEPs: VENC, ITAM and WCCM.

- The Command Security Upgrade Program (CSUP) requirements are developed by key indicators from the Provost Marshall, Physical Security Officer, and Military Police. The CMTC maneuver area contains 40,000 acres with over 100 unmonitored access points. Perimeter security barriers and controlled entry/exit points will require $85K above current program per FY. Physical security of personnel and equipment upgrades require $125K per FY.

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CMTC Initiatives, Continued

Maintenance and repair (real property maintenance) and minor construction (RPM) (continued)

Maintenance and repair (real property maintenance) and minor construction (RPM)	• MSN SPT OMA funds training area buildings, roads, and infrastructure (i.e., electricity, water, heat, sewage, and refuse collection). Overall renovation of facilities is an ongoing coordinated program. Emphasis from FY98-03 will be in the potable water delivery system and quality of life remodeling of living quarters. Specific concerns for the water delivery system include relining, resealing, and repiping the two main systems. The installation of zone utility controls and reducing energy consumption will be a major concern during this half decade. Upgrading single soldier quality of life to DA standards will necessitate the remodeling of existing facilities. An additional $2.15M per FY above the current cost is needed. • Mission OMA maintains adequate supportability for the continued usage of facilities within CMTC. Maintaining current training initiatives based on real world circumstances requires the current level of funding. Singular areas of emphasis are training unit facility modifications, simulation facility flexibility, maneuver area productivity, and modernization of maneuver rights area and adjunct local training areas.
Automation activities	The current funding for other than CMTC-Instrumentation System digitization, due to the increasing technological advances, will necessitate an increase of $147.5K per FY commencing in 2000.
Reserve component support	• Critical to the CMTC is CONUS support from both the Army Reserve and National Guard. Maintenance of two offices (Grafenwoehr and Hohenfels) requires an additional $30K per FY commencing in FY98. • RC Command augmentee transportation to CMTC supporting DEH, OPSGP, OPFOR and MSN SPT exclusive of the IMMA costs $1.0M per FY.
Other	This category encompasses MCA, NAF and DODDS initiatives.

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CMTC Initiatives, Continued

MCA

- CMTC will require additional major construction to meet mission requirements. Construction projects and estimated costs are:
- Class I Facility (TISA), $6.7M, will provide the capability for the healthful, safe Class I storage while supporting training units and the CMTC community. The design includes cold and dry storage, loading docks, and an administration area.
- Wash Rack Facility, $9.8M, will provide low and high pressure cleaning for tracked and wheeled vehicles training at CMTC. It will meet all foreign and domestic environmental standards. Current wash rack is working at 8 times capacity and is located 3 “tank trail” miles from the OPFOR motor pool.
- Unit Maintenance Hangar, $6.8M, will contribute indoor maintenance bays for up to 18 CMTC and visiting aircraft. The facility includes indoor storage, attainment of fire and safety standards, and simultaneous servicing of three aircraft.
- Simulation Center, $5.6M, will be co-located with the training analysis and operations center to extend the battlefield. Future automation/simulation requirements will be integrated with the IS. This project will enhance the seamless integration of live (CMTC/HTA/GTA), virtual (SIMNET/CCTT), and constructive (BBS) environments.
- Tactical Aviation Assembly Area, $1.4M, will provide refueling and landing area for over 40 rotary wing aircraft. Current Intermediate Staging Base does not meet host nation environmental standards.
- Observer/Controller Team Complex, $8.2M, will increase operational efficiency. Facility will have tactical vehicle storage, immediate access to maneuver tank trails, and maintenance facilities. Moving eight O/C Tms from their current open-bay troop billet facilities alleviates rotational unit billet shortages, will provide the teams with shower and toilet facilities, and will provide more parking for the vehicles of the 362 O/C personnel. New facilities will also provide office space and secure storage facilities, team briefing rooms, and locker rooms.

NAF

Derived from surplus generated by authorized user activities within the military community. Projects for consideration are:

- Community Club, $1.8M, will provide an all ranks community club and social facility, and conference rooms.
- Youth Services (YS) Sports Field, $420K, will add a sports facility next to the YS building.

Continued on next page

CMTC Initiatives, Continued

Department of Defense Dependents Schools (DODDS)	Gymnasium, $2.1M will provide multi-court facility with bleachers, showers, and latrines for the new high school.

CMTC LF-IS	• Creates the capability to train USAREUR task forces in an instrumented Live-Fire exercise leveraging existing 7th ATC ranges and a deployable instrumentation system.
	• It will provide USAREUR's units with a complete CTC experience and ensure brigades are better prepared to fight and win by training them in a realistic multi-echeloned battlefield environment. It will challenge a brigade with simultaneous task forces training live-fire and force on force, and simulation maximizing and enhancing existing resources and 7th ATC facilities.
	• CMTC will implement this concept incrementally as follows—
	  • Stand up live fire O/C team with manning derived from realignment of current TDAs.
	  • Exercises conducted at company/team level initially and building to TF or TF(-) exercises.
	  • Exercises conducted initially on existing ranges at GTA with gradual improvements (FY00-05).
	  • Development and delivery of deployable LF instrumentation system occurs FY00-04.
	  • Achievement of full operational capability in FY04.

OSTV	Centrally funded through OPA, and RDTE, the OPFOR Surrogate Tracked Vehicle will present an added element to the force. No net increase for CMTC.
Menu select rotary wing aircraft, mines, and hand held anti-tank systems	Adjunct to the MILES system, these additions will enhance the realistic battlefield. Program manager for MILES is Army Material Command (AMC), who is programming for these requirements.

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CMTC Initiatives, Continued

Initiative roll-up

The table below rank orders CMTC initiatives by funding source.

RDA Initiatives	OMA Initiatives	Other Initiatives
Live fire exercise[1] Automation activities[2] CMTC LF-IS[1] OSTV[2] Menu select rotary wing aircraft, mines, and hand held anti-tank systems[2]	MSN SPT Non-tactical equipment maintenance Transportation services Maintenance and repair and minor construction Reserve component support	Reserve component support MCA NAF DODDS

[1] CTC Program supported under CMTC OIS/LF

[2] Not supported by CTC Program

Chapter 4

Joint Readiness Training Center (JRTC)

Overview

Introduction

This chapter contains the Joint Readiness Training Center (JRTC) segment of the CTC Master Plan.

Objectives

This chapter will, for the JRTC—

- provide the mission
- provide the intent
- provide the imperatives
- provide the current battle field
- provide the vision 2010
- provide the priorities and
- provide the focus areas and other initiatives.

In this chapter

This chapter consists of page inserts for periodic updating by the JRTC after approval by CTC executive management.

Figure 4-1 JRTC Future 2003

Continued on next page

Mission

Introduction This topic contains the JRTC mission.

Mission Provide realistic joint and combined arms training focused on developing soldiers, leaders, Army Infantry Brigade Task Forces, Joint Special Operations forces, and other joint contingency forces under tough, realistic, combat-like conditions across a wide range of likely tactical operations and mission rehearsal exercises capable of fully integrating into higher level exercises and scenarios.

What we do JRTC provides advanced collective training to joint Army task forces consisting of active Army light, air assault and airborne infantry divisions, selected reserve component (RC) forces, United States Special Operations Command (USSOCOM), US Air Force Air Combat Command (ACC) units, and selected Navy and Marine units, all within the context of the Army joint training strategy and doctrine. These contingency forces are trained in deployment and tactical operations under realistic conditions of SASO to war. The JRTC provides a realistic and positive training environment that allows leaders and soldiers to learn, exercise initiative, execute mission type orders, and deal with stress. One of the most important features the JRTC provides is accurate, objective feedback and lessons learned to a rotational units, the Army as a whole, and to the joint community. The JRTC also trains and fields observer/controllers (O/Cs) who are branch qualified subject matter experts in combined arms doctrine and tactics.

Intent

Introduction

This topic provides the intent of the JRTC.

Purpose

The JRTC provides an advanced unit training environment with emphasis on Joint and Combined training for: US Army FORSCOM, USARPAC, USARSO, USASOC, USARC, USSOCOM, and NGB units; US Marine ANGLICO and aviation units; US Navy SEAL and aviation units; US Air Force ACC forces; and NATO/allied forces.

Method

Training system consisting of skilled O/Cs, highly trained OPFOR, complex, tailored scenarios, and an instrumented, realistic battlefield.

Training system providing a unique joint training environment for light, airborne, air assault, ranger, light/heavy combined arms task forces; special operations forces (SOF); and ACC air and ground units to realistically execute their mission essential tasks list (METL), and prepare these contingency forces for rapid deployment and employment against a realistic threat.

Leaders learn the importance of battle command and training in individual and collective tasks. They also develop training concepts and ideas that make subsequent training more effective.

Training results from an intensive teaching/learning experience designed to refine and standardize execution of battlefield tasks.

Detailed after action reviews (AARs) after each phase of training and take home packages (THPs) provided to unit commanders allow the JRTC experience to help refine and focus home station individual and collective training.

End state

Units participating in JRTC training enhance combat readiness and become proficient in the individual and collective skills necessary for success on the modern battlefield.

Provide the force with lessons learned that have Army-wide, joint, and other Service applications.

JRTC Imperatives

Introduction

This topic provides the JRTC imperatives. The following 13 imperatives guide all actions and training at the JRTC. Training is METL driven with demanding force-on-force and live fire scenarios based upon evolving world threats. These scenarios are designed upon the rotational division commander's guidance. The JRTC challenges brigade task forces with an uncompromising OPFOR that exercises every system in the task force.

Imperatives

- Battle focused, force-on-force, and live fire scenarios.
- Realistic battlefield missions and events.
- Relevance to current battlefields worldwide.
- Replicated battlefield to include simulation and free play on difficult, unfamiliar terrain.
- Continuous operations allowing soldiers to feel the impact of combat and leaders to experience the friction and fog of war.
- Focus on squad to brigade with AARs at every level.
- Integration of joint special operations forces from A team / SEAL team to ranger regiment.
- Uncompromising, thinking, flexible, capabilities-based OPFOR.
- Experienced, skilled team of joint O/Cs.
- Instrumentation to collect and record battle actions for replay, analysis, and AARs.
- Total Army/joint participation and integration.
- MSN SPT/training facility infrastructure to support the JRTC mission.
- Feedback to Army in terms of DTLOMS.

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Current JRTC Battlefield

Introduction

A brigade task force deployed to the Island of Aragon currently faces the following challenges (Figure 4-2):

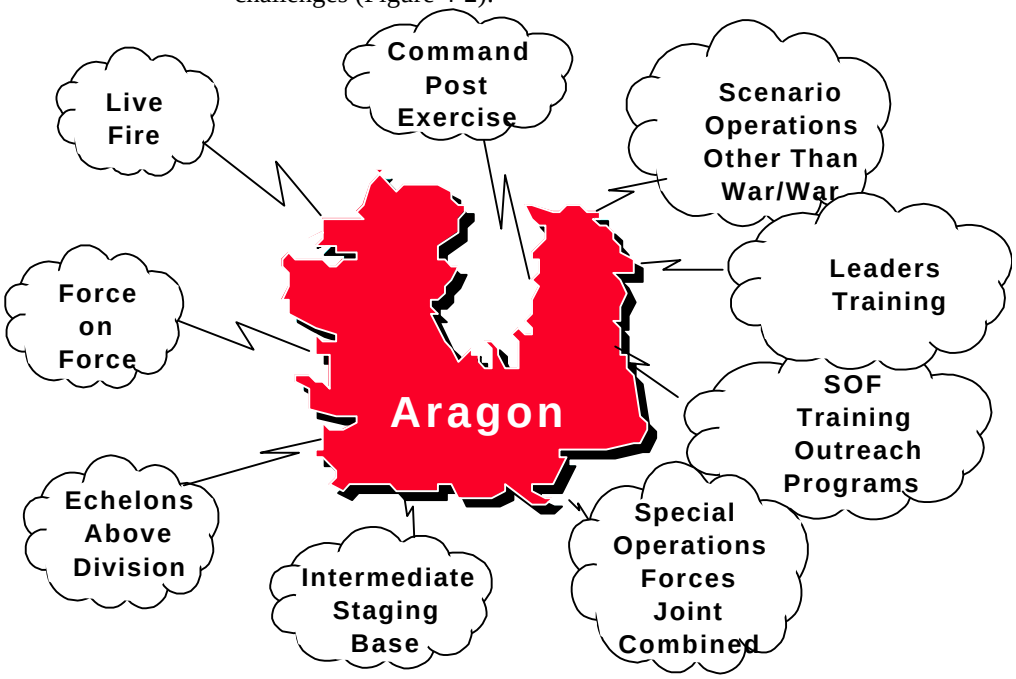

Figure 4-2 Current Battlefield

Leaders training program (LTP)

The LTP prepares brigade and battalion commanders and their staffs for JRTC rotations 90 to 60 days prior to the unit's deployment to the JRTC. The program trains commanders and staffs to synchronize their battlefield through small group exercises on the Janus simulation and AARs. Small group instruction emphasizes the military decision making process integration, practical applications of O/C training observations from previous rotations, successful information management techniques and aids, staff battle drills, and use of doctrinal products. Aspects of battle command, NCO battle skills, and staff members' duties and responsibilities are discussed in workshops. Exercises and AARs are conducted based upon the JRTC scenario and training observations learned from previous rotations.

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Current JRTC Battlefield, Continued

Leaders training program (LTP) (continued)

LTP is a seven day deployment to the island of Aragon, providing the brigade task force and USAF opportunity to train with its organic battalions and slice elements to include SOCCE integration. Built on the coach, teach, and mentor training approach, experienced coaches assist and provide the Brigade leadership feedback on the military decision making process. Key aspects of the LTP are:

- site isolation = reflection/focus
- team building for the brigade task force
- experienced coaches (former brigade/battalion commanders/CSM of the Army)
- plan and prep/execution (85%/15%)
- observations to unit via seminars
- greater NCO focus
- observations to the Army and
- post LTP training focus for the unit.

SOF training outreach program (TOP)

A three day training program conducted at the special forces unit's home station which is designed to assist the unit in preparing for JRTC operations. During this interval, player unit personnel conduct operational planning exercises with SOF O/Cs. Planning scenarios stress military decision making processes and identify systemic operational shortfalls at both the JRTC and National Training center (NTC). Throughout this program, SOF O/Cs provide guidance and objective input based on current U.S. military doctrine.

METL-driven scenario

Unit METL/training needs drive the JRTC scenario. Scenarios range from SASO to mid-intensity conflict. Scenarios incorporate a wide range of locations: Fort Polk as the primary location with outstations that include Fort Chaffee, Camp Robinson, Camp Shelby, Little Rock Air Force Base, Eglin Air Force Base, Pine Bluff, and several maritime targets located off the southern coast of Louisiana and Mississippi.

To meet the rotational unit's specific training requirements, the JRTC conducts an initial coordination meeting at the unit's home station 180 days prior to the unit's rotation. This meeting consists of overview briefings about the JRTC and provides the senior commanders (division and brigade) the opportunity to determine the training objectives for the exercise. The JRTC develops the scenario for the exercise with input and guidance by the division commander to the Commander, Operations Group.

Continued on next page

Current JRTC Battlefield, Continued

Special Operations Forces joint/combined

JRTC conducts seven SOF rotations a year (up to two at NTC) with one rotation dedicated to special operations with the 75th Ranger Regiment participation. Rotations includes Army and Navy SOF, special operations aviation (SOA), and civil affairs (CA) and psychological operations (PSYOP). SOF units enter the operational area as early as D-8 to initiate reconnaissance of the JTF named area of interest, conduct direct action operations against high value targets, and conduct foreign internal defense (FID) missions. Civil affairs teams, PSYOP task forces, ranger units, and special operations units are realistically integrated throughout the scenario with conventional forces.

Intermediate staging base

Located at Alexandria Airfield, the intermediate staging base (ISB) provides the brigade task force the opportunity to train on deployment procedures and organization, planning and pre-combat inspection at a forward staging area before commitment into the area of operations.

Force-on-force

The main emphasis of training at JRTC remains the battalion task forces deployed in a brigade maneuver box. Characteristics of the JRTC force-on-force battlefield include:

- Complicated battlefield (host nation forces, civilians, press, NGOs)
- peace enforcement scenarios (Department of State, NGOs, PVOs participation)
- close and varied terrain
- 360 degree security challenge (unsecured LOCs)
- complex enemy situation (insurgent, terrorists, conventional, and uniformed forces)
- dependence on air LOC for sustainment (air drop/air land ... living off tailgate of a C130 is a major training goal)
- SOF integration (special forces, SEALs, aviation, PSYOP and CA)
- mix of SASO and mid-intensity missions (makes all systems fight)
- deployment skills (USAF JI)
- 1000 contacts per rotation for a brigade task force and
- CSG/ASG and level III medical units participate each rotation (ISB support).

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Current JRTC Battlefield, Continued

Force-on-force (continued)

During each rotation, the training unit is challenged by a thinking, flexible, capabilities-based OPFOR. The OPFOR stresses each system in the brigade task force and provides for a challenging training experience. In free play environment, every BOS and function a brigade task force employs is fully replicated as realistically as possible. Key elements that ensure realistic scenario execution are:

- Exercise Maneuver Control Center. Replicates the notional 21st Infantry Division. As the ARFOR headquarters and JTF headquarters with its full complement of joint participants, it provides the rotational unit information and assistance habitually provided by a higher headquarters. This information is provided across the BOS or functional area.

- Civilians on the battlefield (COB). Government and non-government officials, portrayed by soldiers and civilians, are part of every rotation and provide realistic situations for all levels of command. COBs occupy numerous civilian villages within the exercise area to provide realistic challenges that units face on the battlefield. The presence of COBs allows the JRTC to incorporate situations to stress the civil military affairs and psychological operations forces.

- ARSOF integration is also a vital element of force-on-force operations. When ARSOF is integrated, each brigade may receive a special forces liaison element or Special Operations Command and Control Element (SOCCE) to synchronize SOF operations with conventional force operations and intelligence operations.

- Media on the battlefield is another element of battlefield realism. The JRTC solicits media sources to role play themselves deployed to the island of Aragon. Local TV and newspaper personnel are inserted into the exercise as a DoD press pool to further enhance the battlefield stress felt across all elements of the brigade task force.

- O/Cs focus on squad through brigade. Provides valuable feedback across the BOS and special staff to the training unit. Lessons are gathered by O/Cs each rotation and provided to the unit in the form of detailed AARs and the THPs. In addition, lessons are provided to the Center for Army Lessons Learned (CALL) for dissemination Army-wide and to the joint community as appropriate.

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JRTC Current Battlefield, Continued

Command post exercise (CPX)

JRTC, TRADOC, and the National Simulation Center recognize that constructive simulation provides the rotational brigade the ability to exercise the infantry battalion staff. The JRTC scenarios are specifically designed to integrate the CPX battalion into the overall brigade scenario. The CPX battalion staff operates from field locations (TOC, combat trains, and field train command posts) while company commanders and special platoon leaders execute tactical operations using the Janus simulation. The JRTC CPX simulates all BOS and manually integrates the live simulation (FTX) with the constructive simulation (CPX). The CPX, like the FTX, has a thinking, flexible, capabilities-based OPFOR, COBs, host nation forces, and terrorists. Brigades are stressed and benefit from the CPX by the additional complexity provided by planning, coordinating, resourcing and synchronizing a full-up, three infantry battalion, brigade task force.

Live fire

Units conduct up to 18 conventional and three SOF live fire exercises each rotation. Live fire exercises provide realistic combined arms and joint training for infantry companies and platoons, as well as SOF teams, operating in low- and mid-intensity environments under a variety of conditions. Live fire scenarios use realistic tactical missions that simulate combat and allow leaders and soldiers to solve tactical problems under live fire conditions. Units receive feedback in the form of written and oral AARs.

Echelons above divisions (EAD)

EAD O/Cs observe and control all Corps level units participating in each JRTC rotation. Corps-level units include a support group headquarters and subordinate troop-listed units, medical brigade/group/battalion, corps-level hospital, preventative medicine, dental and air ground evacuation units. EAD units supporting a JRTC rotation are employed IAW current doctrine and receive an AAR and THP based on rotational observations. EAD O/Cs coordinate and control the scenario with regard to the EAD support/play. Integration in scenario/orders is currently limited.

Vision

Introduction

This topic contains the vision of the JRTC for FY 2010.

Vision

In 2010 the JRTC is the home of the world's finest joint combat training center for light forces and will—

- Provide a Force XXI-configured Brigade Task force with tough, realistic, battle-focused training on a fully replicated battlefield that parallels expected combat conditions in a joint, combined arms, and multinational environment.
- Deliver doctrinally sound observations for forces training at the JRTC and export lessons and trends Army-wide and to the joint community.
- Conduct training exercises in context of Joint Operations capable of integrating with external readiness exercises.
- Leverage and integrate emerging technology into the JRTC that exercises:
  - Dominant maneuver
  - Precision engagements
  - Full dimensional force protection
  - Focused logistics

Priorities

Introduction

This topic provides the JRTC priorities for FY 2003.

Priorities

To train soldiers to meet the challenges of the 21st Century, the JRTC must keep pace with emerging technologies, a changing world environment, and evolving threats. Increases in technology will continue to bring improvements in information flow and analysis, lethality of weapon systems, and changes to force structure and equipment. These improvements will greatly increase the commander's ability to exercise battle command and quickly and efficiently integrate and synchronize all BOS. To remain the premier CTC for contingency and special operations forces that it is today, the JRTC must continue to provide an improved training environment that incorporates these changes as they occur, and portray a realistic battlefield that allows the brigade task force to train as it would fight. To accomplish this, the JRTC identified four focus areas and seven initiatives as areas of emphasis to allow for growth and to maximize the potential of the JRTC.

Focus Areas

Introduction

The four main focus areas for the JRTC are:

- Military operations in urban terrain (MOUT) complex
- JRTC Instrumentation System (JRTC-IS)
- maneuver space expansion and
- OPFOR modernization.

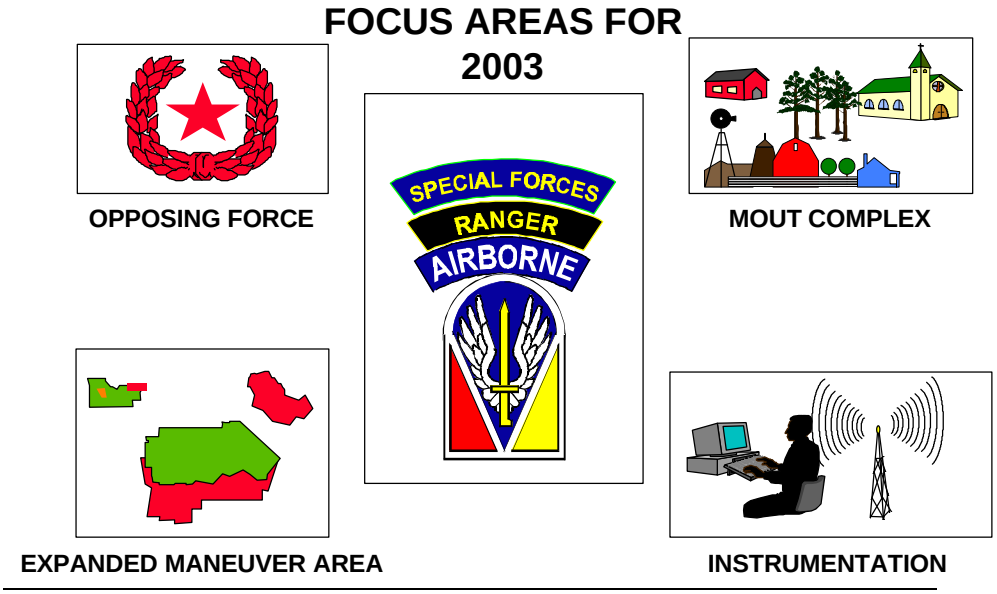

Figure 4-3 Focus Areas

Focus Area— MOUT Complex

Introduction

This topic provides the issues/initiatives for the JRTC MOUT facility.

Current capability

Phase I MOUT complex will consist of Self Airfield, Word Military Compound and Shughart-Gordon Village. The initial rotation is scheduled August 1996. Phase I (FY95-96) capabilities are:

- Self Airfield/C17 capable
- construction on all sites completed (Shugart-Gordon Village, Word Military Compound, Self Airfield, 35 buildings and two water towers)
- limited audiovisual network installed in buildings
- operations center to control targetry and battlefield effects and
- multimedia AAR theater.

Initiative

MOUT is an identified training deficiency within the Army. The JRTC MOUT complex is designed to provide an advanced collective training capability for both force-on-force and live fire training. The JRTC MOUT complex is an integral and essential component of the JRTC. Initiative is to upgrade the MOUT complex with phase II capabilities to operate in the live fire, live simulation (force-on-force) and CPX environments When Phase II is completed the MOUT complex will provide the following expanded capabilities:

- capability to transmit and receive data between the JRTC MOUT complex and the JRTC-IS
- ability to monitor operations throughout the MOUT complex and synchronize data collection throughout the maneuver area
- position location inside any building
- 35 permanent buildings and 2 water towers with audio/video capability and will be fully "instrumented"
- battlefield effects throughout the facility and
- enhanced AARs using videos and data from personnel detection devices.

JRTC has prioritized phase II into five FY executable increments. JRTC will achieve an increased capability at the end of each. The first increment in FY96/97 will complete the audio/visual (A/V) system to include the control system in 35 buildings and 2 water towers and increased battlefield effects. The second increment in FY98 will complete and provide a total battlefield effects package, permitting live fire throughout the complex and providing initial connectivity to the JRTC-IS. The third increment in FY99 provides for the completion of the connectivity to JRTC-IS and initial installation of the internal position location system. Increment four in FY00 provides an upgrade in AAR capability that includes the ability to incorporate JRTC-IS data and initial installation of advanced targetry. The final increment completes the MOUT complex in FY01 with completion of the position location system and installation of advanced targetry.

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Focus Area— MOUT Complex, Continued

Required resources and projected time line

Value added for each system on completion includes the following.

- A/V in 38 buildings. Includes cameras/microphones in each room with an enhanced capability to control the audio/visual system. O/Cs will have the ability to provide better feedback in the form of detailed AARs with the ability to show "game tapes" during the AAR. This increase in capability will also enhance the THP and allow units to develop home station training to correct deficiencies observed during the training.

- Enhanced battlefield effects. Provides live fire throughout the complex and includes battlefield sounds, explosions, smoke, burning buildings/vehicles and enemy tracers. The battlefield effects in Phase I only provides for 1/4 of the complex. Completion of battlefield effects throughout the complex will provide a more realistic and challenging training environment.

- Connectivity to the JRTC-IS. Provides real-time video, position location, small arms engagement data to the analysts and the O/Cs. This will allow the synchronization of events throughout the brigade battlefield. Accurate and immediate data will be provided to the analysts for improved AARs and THPs.

- Internal position location. Provides the ability to detect and track soldiers inside the buildings. O/Cs will have access to more detailed data on soldiers and unit movements that will allow the O/Cs and units to determine what happened and how they can correct observed deficiencies. This is especially important in the analysis of cause and prevention of fratricides.

- Advanced targetry. Provides more human-like targets that are disguised as friendly, neutral, and hostile. Targets will talk via sound system, record precision target feedback, and fire back with the MILES system. This will provide soldiers more realistic targets and enhanced objective feedback on target engagements.

End state

A fully instrumented facility providing realistic training and accurate, timely feedback. Completion of the JRTC MOUT facility will provide JRTC clients an opportunity to train as they fight -- to learn what works and what doesn't and to ultimately save lives when our soldiers deploy into places like Somalia and Bosnia. Units will have the ability to receive ground truth supported by instrumented data and O/C feedback in detailed AARs, and find ways to fix and correct identified deficiencies so they stand more ready to deploy into a most difficult form of combat.

Focus Area— JRTC-IS

Introduction

This topic provides the issues/initiatives for the JRTC-Instrumentation System (JRTC-IS).

Current capability

The JRTC-IS will be an automated data collection and analysis system that will control the exercise and provide training performance feedback to support the train-assess-train model. The JRTC-IS will be an integrated system of computer software and hardware; workstations; databases; voice and video recording, production, and presentation equipment; interface devices; and communications systems to accomplish the following functions: exercise planning, system preparation, exercise management, training performance feedback and system support. The JRTC-IS will collect exercise data from tactical engagement simulators (TES), O/Cs, external systems, and simulations; monitor and control the training exercise; process, display, and analyze collected exercise data; prepare and present standardized training performance feedback; and archive training performance information for external JRTC use.

The JRTC-IS will provide a source of automated data collection that will support the O/C mission to provide feedback to the training unit. Instrumentation assists the O/C and provides the capability to produce enhanced AARs but will not replace the seasoned military experience the O/C provides.

Initiative

Initiatives to expand the capabilities of the JRTC-IS are:

- fully instrument all vehicles, weapons and rotary-wing aircraft
- weapons engagement recording
- improved simulated area weapons effects and battlefield effects
- improved effects of attacking aircraft and naval gunfire
- capacity to simultaneously track 4,000 entities (personnel, vehicles, A/C)
- complete requirement to instrument 4000 players
- integrate USAF attack and airlift aircraft, etc.
- integrate all fielded weapons and C4I systems into the JRTC-IS.
- Improve man-worn tactical engagement simulator (MTES/new PDD)
- collect digital tactical data (signal intelligence feedback system (SIFS))
- instrument new land, if acquired
- field a software engineer environment (SEE) and
- DIS/HLA compliant.

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Issues

Additional issues that the JRTC is working are:
- weapons engagements event recording
- Air Force aircraft
- naval gunfire
- personnel instrumentation
- CPX integration
- vehicle detection device (VDD)
- spectrum monitoring (signal intelligence feedback system (SIFS)) and
- software engineering environment (SEE)

Weapons engagements event recording

- Issue. The JRTC needs to collect data on weapons engagements to provide objective and accurate data to the training unit and other users. This capability also greatly enhances the JRTC to train on anti-fratricide measures.
- Current capability. The JRTC uses MILES I and has no current capability for collecting this data for small arms engagements.
- Initiative. The JRTC needs to acquire a "smart" small arms transmitter (SAT) for use in the box. A smart SAT sends the usual MILES signal to inflict casualties plus a player identification. (SAWE/MILES II for tank main gun, 25mm, and other heavy weapons will have this capability already). The player ID identifies the shooter explicitly and will allow us to collect data on small arms engagements. With player ID the instrumentation system will be able to provide the weapon which inflicted each casualty (including fratricides).
- Recommendation. JRTC pursue the smart SAT as part of the PDD initiative.
- Requirement documentation: requirement defined in existing JRTC-IS ORD.
- Required resources. No resources have been identified. There is no current funding for this effort. Estimates have not been developed because the detailed requirement has not been forwarded to the material developer.
- Projected time lines: none.

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Air Force aircraft

- Issue. There is no current program to instrument fixed wing aircraft at the JRTC.
- Current capability. Manual system with O/C interaction and assessment.
- Initiative. Place emphasis on jointly developing a system to instrument USAF/USN/USMC fixed-wing aircraft to collect data on their operations and developing an Air Warrior-like system at the JRTC which includes both airlift and close air support operations. Operations Group is participating in initial coordination meetings to define the requirement within the joint arena in conjunction with TRADOC representatives. The JRTC provides the best training range for integrating air lift and close air support operations into the ground operation. Joint tactical combat training system (JTCTS) is a funded joint program instrumenting other USAF and USN "ranges" (JRTC and NTC are "ranges" in this context).
- Requirement documentation. JRTC-IS has a requirement (ORD for JRTC-IS) for collecting data on all exercise participants: an Air Warrior-like system is explicitly included.
- Army training deficiency addressed. Joint training deficiency. Coordinated air-ground operations.
- Resource issues. No resources have been identified.
- Projected time line. FY02-03.

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Naval gunfire

- Issue. There is no current program to instrument Naval gunfire.
- Current capability. The JRTC uses a detachment from a USMC ANGLICO to portray Naval gunfire on radio nets. The actual replication uses a semi-automated computer program.
- Initiative. Increase realism by integrating actual USN fire control systems into the JRTC. Using DIS/HLA procedures or a similar system to exchange data, the JRTC will be able to realistically exercise the linkage between naval gunfire and Army units. The joint program, JTCTS, provides an architecture which will exercise USN and USAF elements and is compatible with ground force instrumentation systems (the JRTC-IS is one). This program has great potential for integrating joint, live and instrumented simulation. Similar to the discussion of integrating JRTC with fixed-wing air operations, the JRTC Operations Group is participating in initial coordination meetings to define the requirement within the Joint arena in conjunction with TRADOC representatives. The JRTC provides the best training scenario for integrating Naval gunfire into a US Army ground operation.
- Requirement documentation. The JRTC has a requirement (ORD for JRTC-IS) for simulating and collecting data on all exercise participants.
- Army training deficiency addressed. Joint training deficiency. Coordinates sea-ground operations.
- Resource issues. No resources have been identified.
- Projected time line. FY02-03.

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Personnel instrumentation

- Issue. The existing instrumentation for the dismounted soldier intended for use at JRTC (SAWE/MILES II PDD) has serious deficiencies in weight, bulk, inability to wear combat equipment as the soldiers will fight, and battery consumption. There is no identified program for replacing the MILES I equipment at the CTCs.
- Current capability. The JRTC uses basic MILES I.
- Initiative. The JRTC is working with the proponent, USAIS, to finalize the capability and standards for the follow-on personnel instrumentation. Personnel instrumentation must include "smart" SAT, SAWE, and lightweight PDD. Industry has been approached for commercial research and development of a downsized PDD without government funding.
- Requirement documentation. Requirement for man-worn instrumentation is defined in the JRTC-IS ORD. The requirement for the follow-on PDD was defined Oct 96.
- Resource issues. No resources have been identified. There is no current funding for this effort.
- Projected time line. Start in FY02 and field in FY04.

CPX integration

- Initiative. The task force 3 (TF3) (CPX) needs to be fully integrated with the JRTC-IS, after the JRTC-IS is operational (4QFY96). The instrumentation system must reflect activities throughout the battlefield in as seamless a manner as possible.
- Current capability. JRTC uses a manual interface between TF3 and the current interim instrumentation system. The JRTC-IS has not been fielded.
- Requirement documentation. The requirement is well defined in the ORD for JRTC-IS. This capability is similar to the ongoing CMTC brigade operations initiative.
- Resource issues. No resources have been identified to completely satisfy existing requirement.
- Projected time line. None.

Continued on next page

Vehicle detection device (VDD)

- Issue. The JRTC needs 1320 VDDs to fully instrument the vehicles typically on the JRTC battlefield during an exercise. To date, 377 VDDs have been funded.
- Current capability. The JRTC uses basic MILES I. Insufficient quantities of certain kits are currently on hand. The JRTC has a requirement to instrument all players participating in the force-on-force exercise during every rotation.
- Requirement documentation. Requirement for vehicle instrumentation is defined in the ORD for SAWE.
- Resource issues. No resources have been identified to completely satisfy existing requirement.
- Projected time line. None.

Spectrum monitoring (signal intelligence feedback system (SIFS))

- Issue. Spectrum Monitoring (Signal Intelligence Feedback System (SIFS))
- Initiative. Field a SIFS, variant of the Spectrum Monitoring Engineering System (SMECS), that provides JRTC a spectrum monitoring system with the capability to assess command and control warfare (C2W) by training units and provide them training feedback. The SIFS would also protect the JRTC-IS and electromagnetic spectrum and the local electromagnetic environment (local radio, TV, FAA, doppler radar).
- Required documentation. SMECS requirement identified in ORD for JRTC-IS.
- Resource issues. No resources have been identified to satisfy requirement.
- Projected time line. None.

Focus Area— Maneuver Space Expansion

Introduction

This topic provides issues/initiatives for the expansion of maneuver space at the JRTC.

Current capability

The US Army currently owns 100,009 acres in the vicinity of Fort Polk (66,998 acres in Fullerton Area; 33,011 acres in Peason Ridge) and has an intensive use agreement with the USFS for 40,506 acres in the vicinity of Fort Polk (40,026 acres in Fullerton Area; 480 acres in Peason Area). The US Army also has a limited use agreement for 57,619 acres in the Fort Polk area (44,799 acres south of Fullerton; 12,820 acres at Horse's Head). Army use is governed by a five-year special use permit. Fort Polk also makes agreements each rotation for various outstations to execute SOF missions.

The current JRTC maneuver space is marginally adequate to provide the training area necessary for brigade task forces to employ all assets and weapons systems available. Increase in weapon systems ranges and the ability to doctrinally employ them will require additional maneuver area to fully replicate their effects. Also, units stationed at Fort Polk compete for training areas with rotational units.

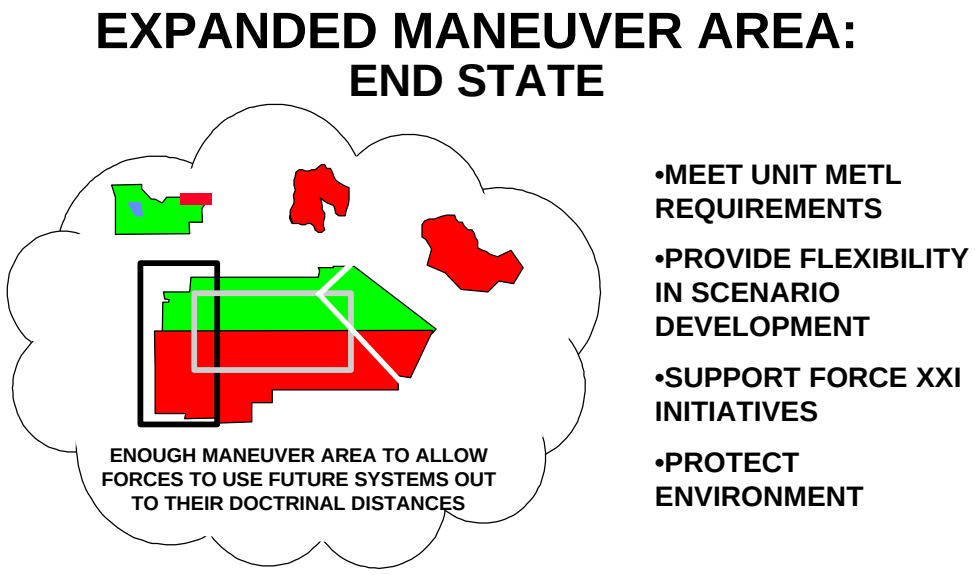

Figure 4-4 Maneuver Space Expansion

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Focus Area— Maneuver Space Expansion, Continued

Issue

The Army needs additional land to support JRTC training. Additional land will promote training realism, reduce overuse of current lands, and support future training requirements as new longer range systems are fielded.

Initiative

Fort Polk wants access to 195,814 acres of intensive and limited use land from the USFS (84,874 acres in Vernon District; 480 acres at Peason; 97,640 Evangeline District; 12,820 in Kisatchie District).

Required resources

This acquisition of US Forestry Service (USFS)-administered land adjacent to the Fort Polk training area:

- expands capability
- provides flexibility in scenario development
- supports Force XXI initiatives
- protects the environment and
- allows for:
  - additional maneuver corridors (see figure 4-7 for depiction of maneuver boxes)
  - portrayal of doctrinal distances.

Obtaining these lands supports the JRTC mission for the Army. Current dual use by both the Army and the USFS could be reduced.

Impacts to the public domain are negligible. All existing land uses for fish and wildlife, hunting, cultural/natural resource management, forestry operations as well as private holdings would remain.

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End state Enough maneuver area to allow forces to use future systems out to their doctrinal distances.

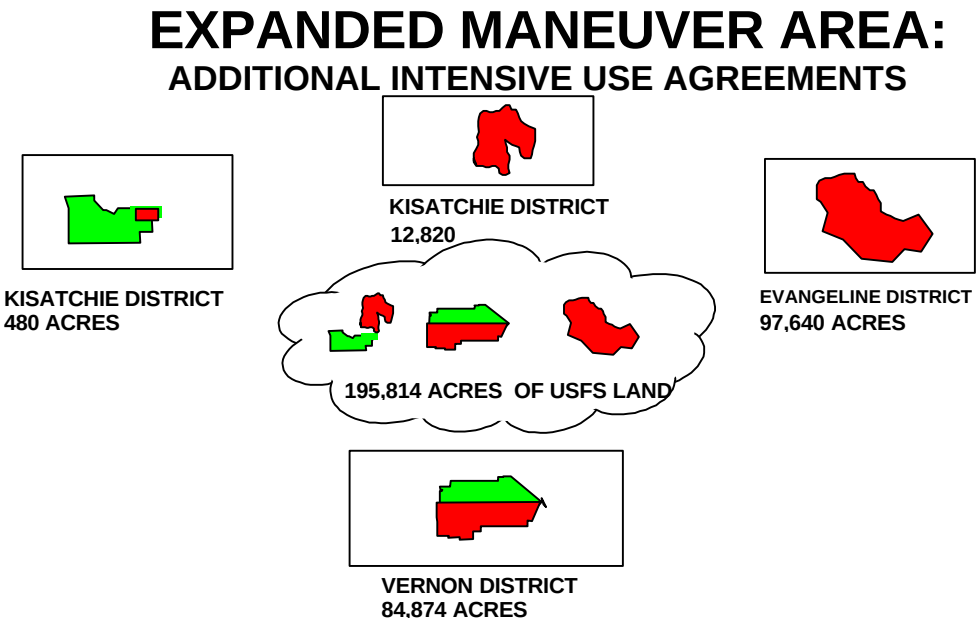

Figure 4-5 Maneuver Space Expansion- End State Requirement

Focus Area—OPFOR Modernization

Introduction

This topic provides issues/initiatives for OPFOR modernization.

OPFOR/ missions capability

A thinking, flexible, capabilities-based OPFOR is a basis for quality training of US forces. The OPFOR must conduct specialized training on techniques and weapon systems to maintain its fighting skills. To maintain the OPFOR at its current high level of effectiveness, modernization is essential when incorporating emerging technology available to threat forces. Current missions/capabilities the OPFOR must perform are as outlined in the TRADOC 350 series light OPFOR organization; Operational Arts and Tactics Handbook (FM 100-60-series). Capabilities must include:

- insurgent organization
- light infantry/parachute infantry also capable of performing special operations
- motorized infantry regiment (MIR) with organic mechanized and attached armor
- air power/aviation threat to include fixed-wing and rotary-wing aircraft
- acts of terrorism through terrorists/agents
- reconnaissance/intelligence collection assets
- replication of electronic warfare assets
- air defense/interdiction of BLUEFOR aviation LOCs and
- combat engineering/breaching during an MIR attack, site defense preparation, limited employment of point minefields to interdict ground LOCs.

Requirements

OPFOR equipment and personnel requirements, by BOS are:

BOS	Requirement
Intelligence	
Maneuver	• AGES II MILES • AT weapons • IN company • night vision/thermal capability • OSV
Fire Support	• FSE (10 personnel)
Air Defense	• ASET IV system
Mobility, Countermobility, and Survivability	• EN company (120 personnel)
Combat Service Support	
Command and Control	• cellular phones • DF, intercept, and jamming • ground based radar • GPS • remotely piloted vehicles • secure radios

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Focus Area—OPFOR Modernization Continued

Requirements (continued)

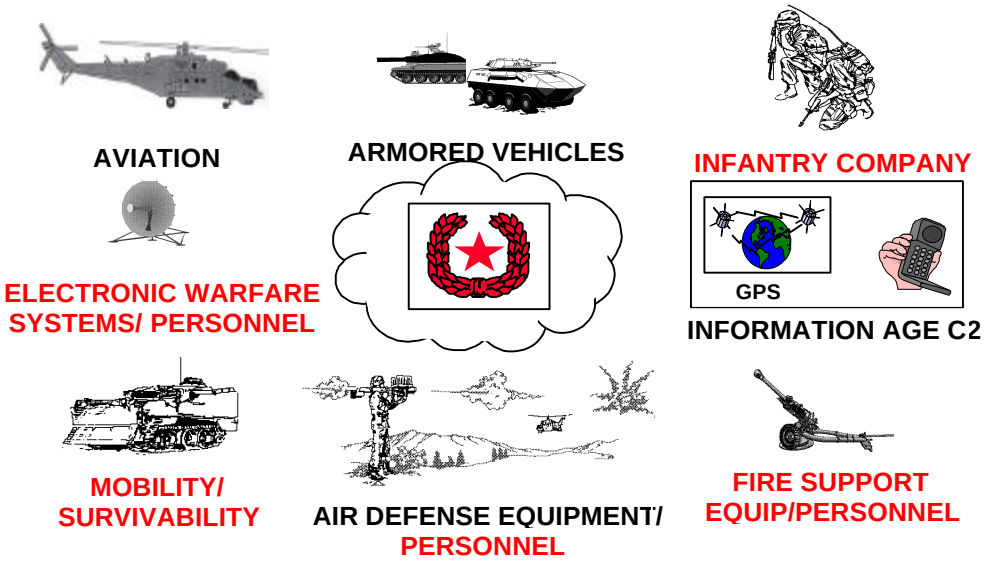

Figure 4-6 OPFOR Capability/Requirements

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Focus Area— OPFOR Modernization, Continued

Initiative

The following initiatives will ensure that the JRTC OPFOR remains a credible force on the JRTC battlefield:

- Intelligence.
  - The JRTC OPFOR does not have electronic warfare capabilities. Minimal capabilities required for the OPFOR to portray a realistic threat are jamming, direction finding/intercept (DF-COMINT), ground surveillance radars (GSR), and short range unmanned aerial vehicles (S-UAV).

- Maneuver. The JRTC goal is to replace augmentation units with an organic airborne infantry company to replicate the full spectrum of OPFOR capabilities required to train rotational units for any future conflicts.
  - Tracked/wheeled vehicles. Tracked and wheeled vehicles are coming to the end of their life-cycle at the JRTC. To maintain OPFOR capabilities against BLUEFOR an OPFOR acquisition program cycle is required for all tracked/wheeled vehicles. Night vision, thermal capabilities, and instrumentation must be embedded into all vehicles.
  - The cessation of the M551 rebuild program requires identification of a re placement for the OPFOR light tank NLT FY 2002.
  - Upgrading or replacement of the M113 VISMOD BMP-1 to BMP-2 requires instrumentation to accurately portray the 30mm cannon versus a .50 cal MG.
  - Aviation. Majority of OPFOR rotary wing air is provided by OPTEC Threat Support Activity (OTSA) through a contract. Air assault capability is currently limited to one platoon versus a company. Continued upgrade of aircraft will occur as former Soviet Union (FSU) aircraft come to the end of their life cycle. Also, requires instrumentation (MILES/AGES II) prior to deployment into the instrumented maneuver box.

- Fire Support. Change the MTOE to reflect the requirement for an Fire Support Element organic to the 1-509 ABN (+). The ten-man requirement includes one fire support officer, one fire support NCO, two fire support specialists, and six FIST personnel.

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Initiatives (continued)

- Air Defense.
  - Aircraft Survivability Equipment Trainer IV (ASET IV) provides credible air defense threat to BLUEFOR. The system is operated by the mission support contractor, the electronics package maintenance support is provided by the CTC-IS CLS contractor.CLS, and HMMWV maintenance is through the directorate of logistics (DFOL). MANPADS operators are provided by augmentees from 2dACR. The system is not funded beyond FY97.
  - ZSU 23-4s do not replicate the lethality of the system, upgrading to 2S6 and accurate instrumentation trains BLUEFOR rotational aviation assets.

- Mobility/countermobility/survivability. JRTC mine breaching capability is limited to replicated mine rollers on the front of T62 tanks and pushing vehicles through a FASCAM mine field. Organic mine field breaching capabilities are nonexistent. The JRTC goal is to change the MTOE to reflect the requirement for an engineer company organic to the 1-509 ABN (+).

- Command and control. Communications within the OPFOR is by PRC-77, unsecure SINCGARS and Bearcat Scanner. Capabilities for frequency hopping and secure communications are available now to anyone with the financial resources. FY03 capabilities should include OPFOR computer networks, cellular phone nets, and satellite communications.

- OSV Program
  - OSV/BMP2 is due to arrive at the training center in FY99. The OSV/BMP2 will challenge the BLUEFOR IFV and tanks on the battlefield with more realistic capabilities than is currently seen with the M113 VISMOD.
  - The M551 VISMOD now has a thermal capability giving the OPFOR the ability to fight
    more effectively in limited visibility or night.

By 2003, the JRTC projects modernization of its OPFOR vehicles and aviation assets and upgrading communications consistent with the current threat. Our goal is to replace the requirement for augmentation units with an organic airborne infantry task force that will replicate the full spectrum of OPFOR capabilities required to train BLUEFOR for any future conflicts.

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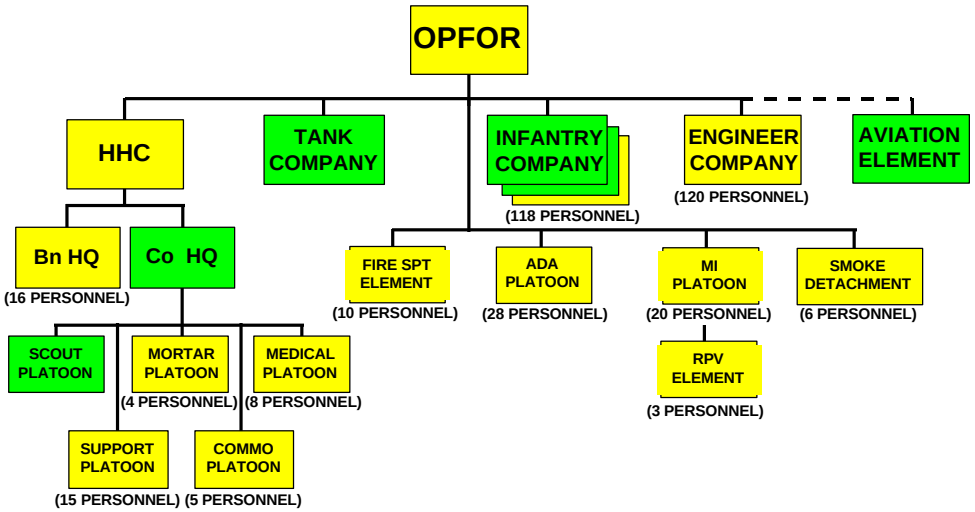
OPPOSING FORCES REQUIRED ORGANIZATION



(Number of Personnel Required to Bring Element to Desired End State)

Figure 4-7 OPFOR Organization End State

OPPOSING FORCES EQUIPMENT SHORTFALLS

CAPABILITY	REQUIREMENT
TRACKED VEHICLES	46 TANKS
WHEELED VEHICLES (REPLACE V-SERIES)	57 (RECON, APCs)
ANTI-TANK WEAPONS	3 X AT7-MANPACK; 2 X 73mm RECOILLESS
SECURE RADIOS	COMSEC DEVICES
SMOKE GENERATING CAPABILITY	2 X SMOKE GENERATORS
SCATTERABLE MINES	1 X HELICOPTER MINELAYING SYSTEM
ELECTRONIC WARFARE	DF, INTERCEPT, JAMMING SYSTEMS GROUND BASED RADARS REMOTE PILOTED VEHICLES, OPTEC
AVIATION INSTRUMENTATION	1EA X MI-24/MI-17/MI-2/AN-2

Figure 4-8 OPFOR Required Changes

Continued on next page

Focus Area— OPFOR Modernization, Continued

End state

- Realistic, flexible, thinking, uncompromising, world-class force
- capable of challenging every system the BLUEFOR brings to the JRTC and
- combined arms capable OPFOR.

Initiatives

Introduction

Other initiatives:

- Higher headquarters replication.
- Command post exercise (CPX).
- Exporting lessons and trends.
- Leaders training program (LTP).
- Command post exercise (CPX).
- Echelons above division (EAD).
- Live fire.
- Special operations forward operating base (FOB).

Initiative— Higher Headquarters Replication

Introduction

Higher headquarters replication.

Current capability

Current JRTC capabilities are:

- Intelligence. Synthetic Imagery Generation system (SIGs). Synthetic Imagery Dissemination (SIDS) (replication of national and theater level products). EC130 Jammer, EH60 (VW) TRQ32 (SIGINT), UAV when available).
- Fire support. TACFIRE and Q36/37 (software developed and used to replicate systems).
- Air defense. Replicate tracks from divisional-level LISDIS and AWACS via voice communications by passing four digit grids, known locations or terrain features.
- Command and control.
  - MSE, SINCGARS, and TACSAT (when authorized and provided by rotational unit).
  - C4I largely portrayed through message traffic (voice and hard copy) without interface with actual systems or simulations.

Initiative

Rotational units must train at the JRTC as they would go to war. The JRTC is currently not fielded with all C4I systems to provide this fidelity in the replication of higher headquarters.

As Force XXI technologies are tested and fielded, a need exists to determine the required training device or system replication necessary for the higher level input.

JRTC needs simulation-driven intelligence that replicates the full spectrum of divisional and EAD/national assets to replicate broadcast intelligence.

JRTC should have the capability to replicate future higher headquarters C4I systems. This includes digital communications and all source data bases. Existing systems that are capable of supporting this initiative are:

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Initiative— Higher Headquarters Replication, Continued

Initiative (continued)

- Trojan SPIRIT II. Communications Platform.
- Airborne warning and control system (AWACS)- (LISDIS). Allows the replication of an air battle management operations center (ABMOC). ADA units receive air tracks via AWACS simulation or digital burst from the ABMOC.
- Joint surveillance target attack radar system (Joint STARS). Ability to replicate products this platform would provide on moving target identification.
- All-source analysis system (ASAS). Intelligence data base linkage for all source intel processing and collection.
- Distributive interactive simulation network (DISNET) I & III. Intelligence data base.
- Tactical simulation (TACSIM). Provides the linkage and interface for employment of C4I systems. Provides the ability to replicate real time systems architecture.
- Joint deployable intelligence support system (JDISS). Ties SOF to ASAS.
- Special operations command, research analysis and threat evaluation system.

Automation support to replicate systems employed is also critical to integration of C4I systems.

Undetermined given the development and fielding of future C4I systems.

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Initiative— Higher Headquarters Replication, Continued

Initiative (continued)

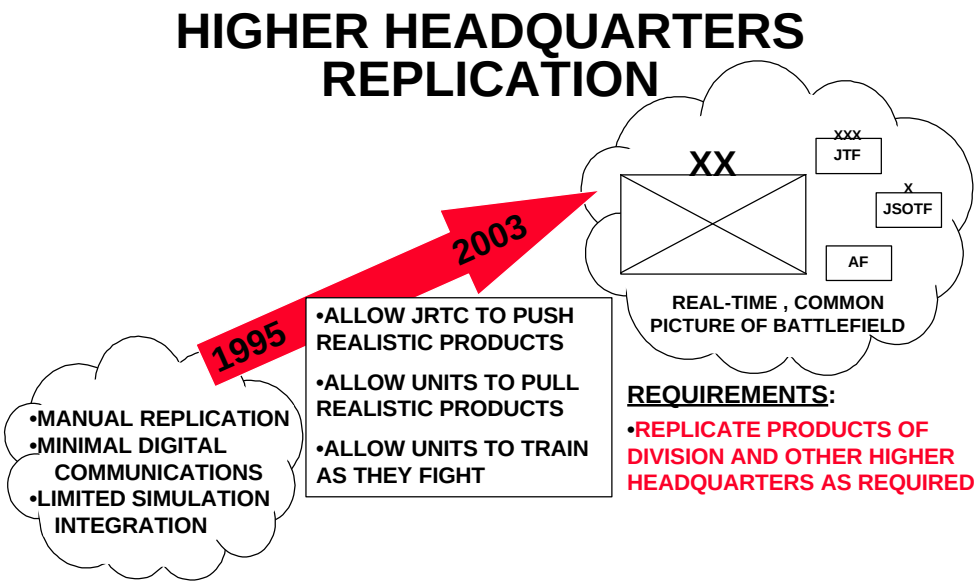

Figure 4-9 Higher Headquarters Replication

Projected time line

Timeline will be based on future initiatives, development, and fielding of future C4I systems.

End state

An exercise maneuver control center (EMCC) with the same C4I systems as the appropriate higher headquarters (or the ability to replicate those systems to provide realistic products and allow units to train as they fight).

Initiative— Command Post Exercise (CPX)

Introduction

Command post exercise (CPX) (TF3).

Current capability

JRTC's TF3 provides the rotational brigade the ability to exercise the staff of a third infantry battalion through use of constructive simulation. Scenarios are specifically designed to integrate the CPX battalion into the brigade scenario. The CPX battalion staff operates from field locations (TOC, combat trains, and field train command posts) while company commanders and special platoon leaders execute tactical operations using the Janus simulation. The JRTC CPX simulates all BOS and integrates live simulation (FTX) with the constructive simulation (CPX). The CPX, like the FTX, has a thinking, flexible, capabilities-based OPFOR, COBs, host nation forces, and terrorists. Brigades are stressed and benefit from the CPX by the additional complexity provided by planning, coordinating, resourcing, and synchronizing a three infantry battalion, brigade task force. The third task force operates the same as the two maneuver task forces with a lower personnel requirement.

Initiative

Continue to upgrade the CPX system that leads to a near seamless integration of the constructive simulation and the live force-on-force. To accomplish this the CPX must have:

- DIS/HLA compliant stimulation
- capable hardware/software
- personnel and equipment to run the system and O/C the event
- connectivity between live, constructive, and virtual simulations
- Task Force 3 simulation (currently Janus) to JRTC-IS— constructive simulation integrated into instrumentation system
- complete fire support integration
- coordinated FTX/CPX OPFOR and
- Future DIS/HLA simulation.

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Initiative (continued)

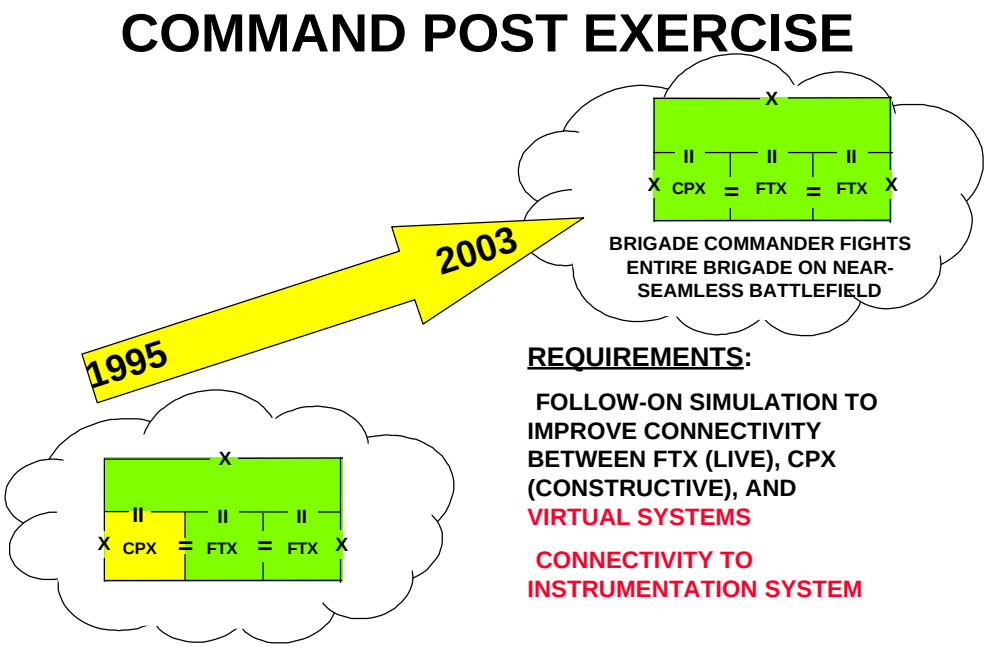

Figure 4-10 Command Post Exercise Integration

Required resources

Requirements for the future to support a near seamless JRTC battlefield:

- Follow-on simulation. WARSIM 2000 under development by STRICOM which features the ability to play all BOS down to squad/team level in conflicts ranging from SASO to war may fulfill the requirement.
- Connectivity with instrumentation. The follow-on simulation must be able to connect to and exchange data with the JRTC-IS. This is not currently funded.

End state

The end state of the CPX is for the Brigade commander to fight the entire brigade on a near seamless battlefield. The JRTC rotational battlefield must improve the integration of constructive simulation with live simulation and be near seamless to all rotational players. The JRTC rotational brigade will achieve greater training realism and integration of constructive with live simulation when advanced simulation (WARSIM 2000) is fielded and connected into the JRTC-IS.

Initiative— Exporting Lessons and Trends

Introduction

This topic provides issues/initiatives on the JRTC feedback to the Forces.

Current capability

The JRTC feedback to the force is now in the form of:

- LTP. Provides a focused commander and staff seven day training program on the military decision making process to include seminars and JRTC lessons and trends to units prior to rotation. They assemble and provide training products for the training audience.

- Observer/controllers. O/Cs conduct seminars, discussions, and VTCs with service school instructors and doctrine writers. JRTC lessons are passed into doctrine and the classroom. O/Cs take JRTC experience to the force when they PCS.

- O/C Academy. This program will train 30-40 AC/RC personnel per rotation. Training and "right seat" experience will facilitate the passing of lessons and trends to trainers and the reserve force. JRTC currently conducts a "right seat" program where 30 personnel receive the JRTC experience through O/C mentoring over a ten-day period.

- Focused Rotations. CALL (TRADOC) conducts three-four focused rotations per year. These rotations allow doctrine writers to observe and survey O/Cs and rotational unit during one or more rotations. The rotations focused on a specific piece of equipment, manual, or portion of doctrine.

- Project Warrior. O/Cs spend two years at JRTC, then teach/write doctrine at a branch school. Take JRTC experience to the classroom and provide input into the requirements determination process.

- Doctrine Review. O/Cs regularly review doctrine prior to publication. This allows doctrine writers to obtain feedback from O/Cs who pass on the JRTC lessons and trends.

- THPs. O/Cs provide written and video packages to units on E+3. Copies are also sent to CALL and are accessible to other units. THPs help track trends and major lessons over several rotations.

Continued on next page

Initiative— Exporting Lessons and Trends, Continued

Current capability (continued)

- How-to videos. These videos are published as directed by the JRTC CG or COG based on need. They are available through JRTC or CALL. CALL provides a push distribution system for these videos to units before come to a rotation.
- Client newsletter. This newsletter is published annually at the beginning of each FY. It includes letters from the CG, COG, and Seniors O/Cs on what JRTC has to offer. It also includes major observations by BOS.
- Post rotation VTCs. Each rotation, JRTC conducts a VTC for the FORSCOM Commander at about E+8. This provides major lessons and trends from the latest rotation.
- Professional journals. O/Cs write many articles for publication in professional journals. These articles usually address a specific deficiency or provide a proven technique.
- CALL/trends. JRTC provides a newsletter to CALL semi-annually on observed trends and "how-to-fix." O/Cs routinely write articles for CALL bulletins.
- DTLOMS. JRTC provides feedback, as directed, for deficiencies present over several rotations.

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Initiative— Exporting Lessons and Trends, Continued

Initiative

Units need the capability to rapidly access information related to lessons and training trends derived from the Training Center. An on-line computer system is needed that provides units or soldiers with a personal computer access to JRTC information related to training observations and trends.

- Army knowledge network (AKN). This will provide individuals and units the ability to retrieve, analyze, tailor, and present information. An interactive library that allows multimedia applications, storing and retrieving publications, and access to training development and applications.
- CTC warrior information network. This is one of the components of AKN. It allow individuals, units and research agencies to access information from the CTCs. Information includes THPs, operational papers, AAR videos, and audio tapes.
- Force XXI WARNET. This is the gateway to the AKN. It currently accesses Automated Historical Archives System (AHAS). Warrior Information Network (CTC WIN), CALL and Force XXI databases include hardware and software to allow user access.

Resources required

- AKN.
- Force XXI WARNET.

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Initiative— Exporting Lessons and Trends, Continued

End state

A move from the paper-based system now in place and tied into improved online computer systems allows for rapid access by all echelons of command to information and training trends.

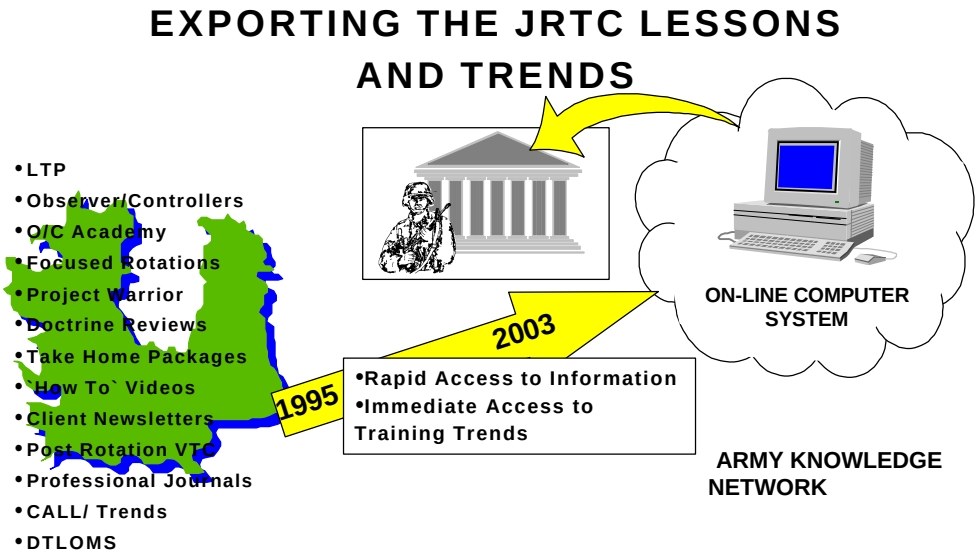

Figure 4-11 Feedback to the Force

Initiative— Leaders Training Program (LTP)

Introduction

This topic provides the issues/initiatives for the JRTC LTP.

Current capability

The LTP is a seven day program to prepare brigade and battalion staffs for their JRTC rotations. The LTP training objective is to train staffs to plan, coordinate, integrate, synchronize, and execute operations. LTP includes integrated exercises on the Janus simulation, AARs, instructions on the staff estimate process, O/C observations, decision battle drills, battle management aids, and the use of doctrinal products.

The current simulations capability at the LTP (Janus) does not provide adequate interactive detail to exercise the total spectrum of battle command as it is developing today. The Army needs a simulation system that enhances the ability to reinforce battle command and battle staff competencies. The simulation should work with emerging planning, intelligence, and maneuver control systems such as Phoenix and ASAS. It should incorporate all BOS as they contribute to the planning and execution phases of battle command.

Initiatives

A follow-on simulation designed after an entity based model, allowing the simulation to be DIS compliant would enhance the LTP's efforts. Flexibility to incorporate (locally or from other ISM centers) other virtual, constructive or live simulations would also contribute to the program's effectiveness and allow a percentage shift to achieve a balanced ratio of planning and preparing/executing.

LTP will continue to provide for the coach, teach, mentor approach to training. Improvements will continue to rely on experienced coaches to provide a team building experience for the brigade task force leadership. Improvements include:

- increasing the time spent executing plans
- graduate level operations
- defined staff tasks
- home station CD-ROM based trained-up and
- home station diagnostic assessment for staffs.

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Initiative— Leaders Training Program (LTP), Continued

Initiatives (continued)

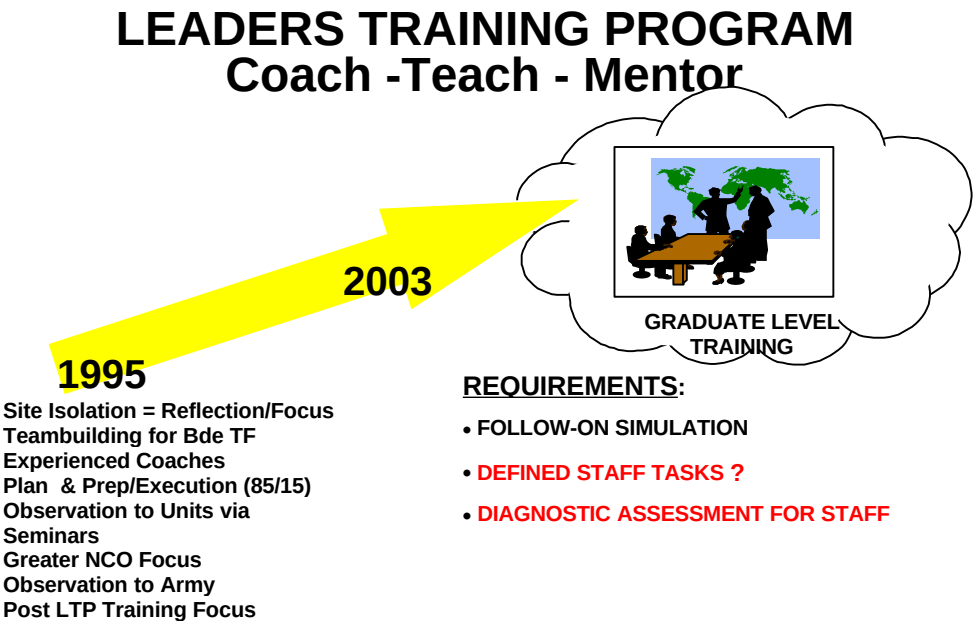

Figure 4-12 Leaders Training Program

End state

Brigade task forces arrive at the JRTC LTP prepared and ready to execute graduate level training and a follow-on simulation.

Initiative— Echelons Above Division (EAD)

Introduction

This topic provides issues/initiatives for echelons above division (EAD).

Current capability

In August 1994, the EAD cell was created to enhance the training opportunity for EAD units supporting rotations IAW FORSCOM Reg 350-50-2. There are currently two active duty and two AGR officers assigned. Also, up to 15 augmentee O/Cs are provided by client commanders each rotation.

EAD training now is:
- ad hoc organization
- task directed
- mixed tactical and nontactical employment for all units and
- not receiving optimal O/C value.

EAD needs to be:
- Task organized
- mission directed and
- battle focused.

Initiatives

EAD participation in JRTC exercises merits full O/C coverage (AAR/THP). EAD client units are often the first ones deploying during SASO. Their participation at the JRTC represents a "value added" to the brigade task force by providing critical mission support while allowing the EAD units to train on their METL. If unsuccessful, the requirement will have to be met by an increased divisional logistics element and increased transportation cost.

Resources required

A DA form 140-4 (Manpower Survey Report- Schedule X- Manpower and Workload Data) is currently in staffing at HQs, TRADOC. On approval, the action establishes 17 personnel requirements (one 1 CIV, 16 MIL). We need six authorizations with the remaining requirements covered by augmentees each rotation. CSS logistical and medical units require $385K per rotation. Funding for transportation must be continued as these units provide critical rotation support (ISB, medical, transportation) to the brigade task force. EAD units are fully integrated as clients on the new mission support contract proposal. An EAD prepositioned vehicle fleet proposal is near implementation. This action will drastically reduce transportation costs for each rotation. A similar DEPMEDS hospital proposal is being developed.

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Initiative- Echelons Above Division (EAD), Continued

Proposed time line

FY98.

End state

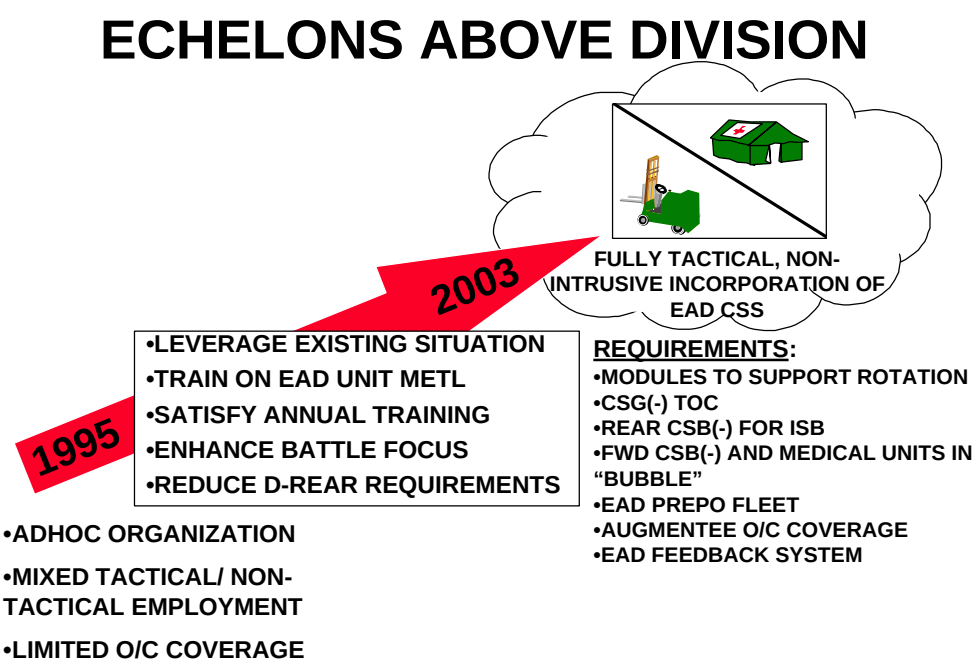

Figure 4-13 EAD

The desired end state for EAD at the JRTC is:

- non-intrusive incorporation of EAD CSS
- change to FORSCOM Regulation 350-50-2
- streamlined DISCOM FWD cell
- EAD CS/CSS control cell
- CSG (-) HQ TOC (CPX option)
- one rear CSB (-) for ISB
- one forward CSB (-) and corps medical units in tactical "bubble"
- EAD prepositioned fleet
- habitual, quality O/C augmentees (six-eight)
- established EAD feedback system and
- controlled personnel requirements and authorizations on the TDA.

Initiative— Live Fire

Introduction

This topic provides the issues/initiatives for an increase in live fire facilities and a concomitant force structure increase to support an expansion from ten live fire exercises per rotation to 18 platoon and three special forces live fire exercises per rotation.

Current capabilities

Rotational units conduct live fire training using realistic target arrays. Live fire elements train using those assets that doctrinally can be expected to be present when conducting combat operations given the factors of mission, enemy, terrain, troops, and time available (METT-T). The Live Fire Division currently conducts six platoon, one light/heavy team, and three special forces live fire exercises per rotation. Current capabilities are:

- Combined arms live fires can include artillery, armor, close air support, and Army aviation.
- Live fires conducted are the light/heavy, trench line attack, village attack, movement to contact, ambush, raid, sniper, convoy security, and terminal guidance missions. Most are conducted at night.
- Provide STRAC-allocated ammunition levels to player units to support 18 live fire exercises per rotation to 18 platoon and three special forces live fire exercises per rotation. Requirements in excess of this support level is a unit responsibility.

Continued on next page

Initiative— Live Fire, Continued

Initiatives

Initiatives are:

- Increase the number of live fires to 18 platoon and three special forces live fire exercises.
- Send each infantry platoon in the brigade task force to a live fire over the course of the rotation, to include the conduct of live fires in the MOUT complex.
- Increase 20 personnel in Live Fire Division to observe and control 18/3 live fires per rotation. The request for additional personnel has been approved by TRADOC.
- Increase the JRTC TDA to provide equipment for the additional O/Cs.
- Increase the JRTC ammunition account to support 18/3 live fire exercises. The increase will include the addition of aviation, MK-19, 155m, Bradley, and short range training ammunition.
- Purchase new targetry to meet the increased demand 18/3 live fire exercises will place on the JRTC maintenance/logistic system.

Required resources

Twenty additional O/Cs to execute 21 live-fire exercises. Construction of the additional live-fire objectives is funded, on schedule, and 24% complete.

O/C Requirements (OFF/ENL)				
Element	**Current/FY97**	**Current/FY98***	**End State**	**Delta**
HQs	1/2	1/2	2/2	1/0
Operations	1/4	1/5	1/5	0/0
Teams	5/14	5/24	8/27	3/3
MOUT	1/2	1/2	1/4	0/2
Subtotal	8/22	8/33	12/38	4/5
Total (OFF+ENL)	30	41	50	9

*TDA changes have been programmed into the 0198 TDA.

Continued on next page

Initiative— Live Fire, Continued

Projected time line

Live fires begin at the Peason Live Fire Complex in May 1996. The JRTC will begin executing 21 (18 platoon/three special forces) live fire exercises each rotation when the additional personnel are allocated.

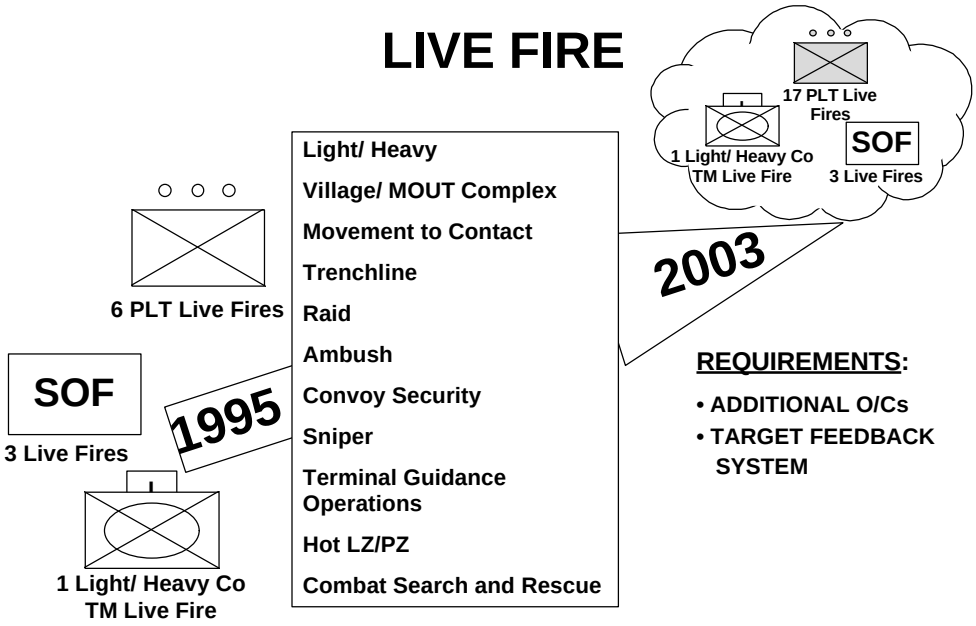

Figure 4-14 Live Fire

End state

The end state of the JRTC's live fire complex is to give each platoon in the brigade task force a live fire during the rotation. In addition, we will continue to conduct three special forces live fires per rotation. The 18 live fire exercises include live fire exercises in the MOUT complex.

Initiative— Special Operations Forward Operating Base (FOB)

Introduction

This topic provides the issues/initiatives for the special operations training detachment (SOTD) at the JRTC.

Capabilities

The JRTC SOTD is capable of providing O/C coverage for six SFODAs, two SFODBs, and a special forces battalion headquarters configured as forward operational base (FOB). It also provides O/C coverage for PSYOP and CA player units associated with FOB and conventional brigade sized units. Special operations aviation (SOA) is covered by two SOA O/Cs. When properly augmented, SOTD can also provide O/C coverage for a naval special warfare tasking unit and two SEAL teams.

The SOTD is capable of exporting its capability by deploying personnel and assets to different locations. It currently provides O/C coverage for SOF participating in up to three NTC rotations per year.

SOF from all services conduct realistic live fires during their JRTC rotations. Most live fires include both ground and aviation elements.

The SOTD O/Cs are doctrinal SMEs in special operations in the joint and combined arenas. They provide integrated feedback to the conventional and special operations forces as follows:

- AARs (up to 35 per rotation)
- training outreach program (equivalent to conventional LTP)
- THPs
- SOF specific data collection
- SOF training bulletin (produced semiannually)
- AC/RC integration
- shadow O/C program
- input to professional journals
- input to CALL
- review and update of SOF doctrinal publications and
- return of highly qualified O/Cs to the force in two years.

Continued on next page

Initiative— Special Operations Forward Operating Base (FOB), Continued

Initiatives

- Full integration of SOF into the JRTC-IS.
- Facilities must include: SOF player unit FOB compound, NAVFOR and AFSOF facilities; SOA facilities to include landing pads and maintenance area; and AAR Theater and TAFF facilities.
- Establishment or construction of a facility at the NTC to support SOF participation. Facilities must support: living and workspace for SOTD O/Cs and SOF plans personnel and exercise support group personnel.

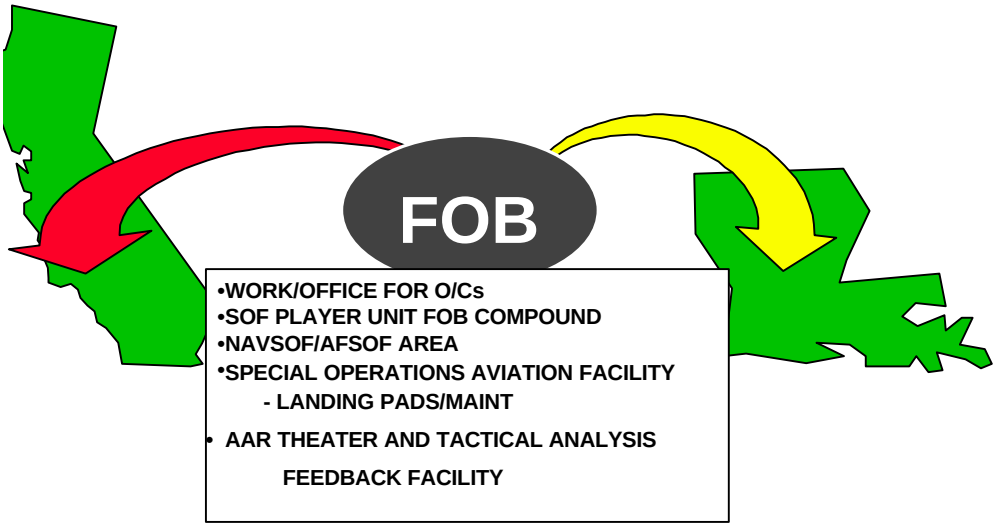

Figure 4-15 SOF FOB Facilities

End state

FOB - Construction of facilities that replace WWII wood facilities to support the O/Cs and provide the training unit a FOB at the JRTC.

Continued on next page

Initiative— Special Operations Forward Operating Base (FOB), Continued

Other	SOF participation at the CMTC on a limited basis. Initial participation being considered is one SFODB and two SFODAs participating in one or two rotations per year. US Army Special Forces personnel are trained to be O/Cs by JRTC SOF O/Cs prior to deployment to CMTC.

JRTC Initiatives

Initiative roll-up

The table below rank orders JRTC initiatives by funding source.

RDA Initiatives	OMA Initiatives	Other Initiatives
MOUT complex[1] JRTC-IS[2] OPFOR modernization[3] Higher headquarters replication[4] Command post exercise (CPX)[5] Live fire[5] Leader training program (LTP)[4] Special forces forward operating base (FOB)[4]	Exporting lessons and trends Echelons above division (EAD)	Maneuver space expansion

[1]CTC Program supported in part under JRTC MOUT Phase II
[2]CTC Program supported in part under JRTC OIS (Lot II)
[3]CTC Program supported in part under CTC OPFOR IFV, CTC OPFOR Tank, CTC OPFOR AV, CTC OPFOR
[4]Not CTC Program supported under JRTC OIS (Lot II)
[5]CTC Program supported under JRTC OIS (Lot II)

Chapter 5

National Training Center (NTC)

Overview

Introduction

This chapter contains the National Training Center (NTC) segment of the CTC Master Plan**.**

Objectives

This chapter will, for the NTC—
- provide the vision 2003
- provide the mission
- provide the commander's intent
- provide the goals
- provide the initiatives and
- provide the priorities.

In this chapter

This chapter consists of page inserts for periodic updating by the NTC after approval by CTC executive management.

Continued on next page

National Training Center (NTC), Continued

Vision

The National Training Center and Fort Irwin is an enduring installation dedicated to provide a realistic training environment focused on honing warfighting skills of soldiers and leaders in a force projection Army for the 21st Century battlefield, while providing quality of life for soldiers, civilians, and family members.

Mission

To provide realistic joint and combined arms training focused on developing soldiers, leaders and units of America's Army for success on the 21st Century battlefield. Maintain a safe environment and quality of life for all soldiers and their families. NTC is also a source of experience-based information and data essential to improving the force.

Commander's intent

Train the Army's soldiers, leaders and units for success on the modern battlefield through the use of challenging METL-based, force projection scenarios for battalion and brigade task forces opposed by a free thinking, robust OPFOR. Training feedback is given to soldiers, leaders, and staffs at every echelon, platoon to brigade, using the after action review process. The NTC will remain the centerpiece of heavy force training through integration of new technologies to simulate combat involving advanced, complex and adaptive forces. Additionally, utilization of emerging technologies will be maximized to record and categorize observations thoroughly and accurately to provide information and data essential to the development of doctrine and improvement of the force.

Goals

The goals of the National Training Center that support accomplishment of the mission are:

- Train the Force
- Provide a realistic training environment for the 21st Century battlefield
- Develop the National Training Center and Fort Irwin as an enduring installation
- Provide quality of life for soldiers, civilians, and family members.

Continued on next page

National Training Center (NTC), Continued

General

Power projection is the central element of US National Military Strategy. The Army contributes to this strategy as part of a joint team through force projection. Force projection is the demonstrated ability to rapidly alert, mobilize, deploy and conduct operations anywhere in the world. Army forces fight as a combined arms team. Combined arms warfare is the simultaneous application of several elements as an integrated whole to maximize the generation of combat power. The combined arms team strives to conduct fully integrated operations in the dimensions of time, space and means. Combined arms forces operate over increasingly large areas of the battlefield. Modern combined arms warfare puts added stress on maintaining dispersed and non-contiguous formations. Advances in electronics, communications, automation, reconnaissance and surveillance, contamination avoidance, precision weapons and space technology have increased accessibility to a greater depth of the battlefield. This information-age technology has the potential to increase the tempo and lethality of modern warfare and provide the ability to disperse forces without losing the ability to mass effects.

FORSCOM armored, aviation, mechanized infantry and light infantry battalion task forces under brigade level command and control train at the NTC. Additionally, combat support and combat service support elements a brigade commander would expect to have available are also present. Units training at the NTC have a varied allocation of high tech organic equipment. This includes modern tanks, air defense artillery, field artillery, anti-armor, aviation, engineer, electronic warfare, mechanized and light infantry elements. Armored reserve component combat units and elements from the US Marine Corps and Navy also train as part of the rotational unit from time to time. The US Air Force provides close air support for the units trained at the NTC through the instrumented Air Warrior Program.

The National Training Center is uniquely equipped and organized to provide tough, realistic combined arms training according to joint operations doctrine for brigades/regiments in a mid to high intensity environment while retaining the training feedback and analysis focus at battalion/task force level. Annually, 10 brigade combat teams consisting of from four to seven battalions/squadrons/task forces (averaging approximately 5000 soldiers, to include brigade slice, each rotation) rotate through the NTC for intensive combat training against a thinking, flexible, capabilities-based opposing force highly trained in threat doctrine. During their 28 day stay at Fort Irwin, units experience six days of reception, staging, onward movement and integration operations, 14 days of tactical operations that includes both force-on-force and live-fire training and six days of combat force regeneration. Units, equipped with Weapons Engagement Simulation Systems, conduct training in areas containing sophisticated data collection and recording systems that provide a record of engagements for review, analysis, and use in planning and conducting training upon return to home station.

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National Training Center (NTC), Continued

General (continued)

The National Training Center Opposing Force (OPFOR), the 60th Guards Motorized Rifle Division, includes the Headquarters and Headquarters Troop, 11th Armored Cavalry Regiment (ACR), 1st Squadron, 2nd Squadron and Support Squadron 11th ACR, 58th Engineer Company, 511th Military Intelligence Company, Air Defense Battery (provisional) 11th ACR, and C Company 3/159th Aviation Battalion. Additionally, during each rotation an infantry battalion, dismounted, and one engineer company augment the OPFOR. The infantry augmentation comes from active duty forces, reserve component forces, US Marines and/or Canadian/United Kingdom Army. The US Air Force provides close air support for the OPFOR through the Air Warrior Program. Navy, Marine and allied (UK) aircraft also participate in this program. Detachment C, 203d MI BN provides foreign vehicles and equipment for training and realism on the NTC battlefield.

The NTC OPFOR is a well trained, highly motivated, thinking, flexible, capabilities based unit certified in OPFOR heavy style tactics and doctrine. It can replicate BMP equipped MRR(+) with some equipment shortfalls. This organization includes actual intelligence and electronic warfare support, maneuver units including infantry and antitank forces, attack helicopter and fixed wing fire support, mobility-countermobility-survivability engineer efforts, air defense assets, and a battle command and control structure. The NTC replicates OPFOR artillery and chemical munitions through the instrumentation system. The OPFOR also has the capability to conduct unconventional warfare missions to support RSO&I training missions.

Continued on next page

National Training Center (NTC), Continued

Initiatives

- Spectrum management.
- OPFOR modernization.
- Land expansion.
- Instrumentation- land expansion.
- Intelligence architecture.
- Live fire targetry communications conversion.
- NLOS systems integration.

Continued on next page

Spectrum management

The radio frequency spectrum must be aggressively managed to minimize vulnerability to and interference from outside licensed or nonlicensed electromagnetic radiating devices. As a result of DoD spectrum sales, RF spectrum has become a very precious resource at all CTCs. Evolving RF dependent command, control, and weapons systems being developed for the 21st century warfighter mandate new methods of data collection and processing be developed to support the CTC Trainer. The ability to provide access on demand to critical data needed in the production of AARs in a digital environment is of paramount concern. To achieve this training support, additional capabilities are needed to manage and protect the RF spectrum well into the 21st century.

- It is necessary to upgrade the RF measurement capability to measure and analyze spectrum signatures of RF emitting devices or systems that will be hosted or integrated into the training environment. This upgrade will provide the measurement tools necessary to identify and resolve spectrum interoperability and compatibility issues in house for an ever increasing density of electromagnetic emissions. These tools will result in greater efficiency, responsiveness, and cost reductions in supporting regulatory requirements and technical assessment of changing NTC mission requirements.
- Provide the capability to O/Cs to assess the combat communication architecture for the rotation emitters through the use of spectrum management software. This capability will provide the O/C the ability to visually display command and control connectivity. The intent is to allow the O/C to graphically portray a units ability to communicate with elements of its own or other support units which require positive command and control.
- The observer controller communication system (OCCS) will undergo a five channel upgrade. This will provide the opportunity to migrate installation command and control, administration, and support radio nets to move to OCCS. This will free additional radio frequency bands for rotational unit use. This effort will also standardize installation communications systems resulting in cost savings from having to manage multiple radio systems for maintenance and repair.
- The required operational capability (ROC) for the Spectrum Monitoring, Engineering and Control-Simulation Training Subsystem (SMECS-STS) XXI is under development. The ROC will identify and provide for the capability to display measured/simulated electromagnetic battlefield signatures of BLUEFOR and OPFOR command and control warfighting connectivity, electronic attack/defense capability, jamming effectiveness, and combat communications radio net discipline on a situational awareness map. Data collected can be analyzed and compiled for Army lessons learned and can provide the capability for trainers to access all information on demand for use in AARs.

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Spectrum management (continued)

- The current trend towards sale of formerly DoD used RF spectrum to commercial entities will force all to seek better ways to manage/use the limited remaining RF resources. The NTC must begin pursuing alternative technologies for use in order to free as much RF spectrum as possible for tactical use. The use of spread spectrum technologies or extensive use of fiber optics must be explored. Frequency authorizations for the current NTC RDMS upgrade expire in 5-8 years. This will force use of alternative technologies. We must begin now, to explore and implement technologies that eliminate dependency on the RF spectrum.

OPFOR modernization

- Increased OPFOR air defense capability. The OPFOR currently fields less than the normal air defense allocated to a regiment. The Army will solve this by fielding three aircraft survivability equipment trainer (ASET IV) suites to the NTC by October 1996. The current OPFOR ADA TDA structure can not support the full MANPADS and ASET IV equipment availability. The NTC OPFOR will activate an MTOE ADA battery in FY98 to provide the personnel requirements. The Army should accelerate the ADA battery activation, or approve an interim TDA level to solve the personnel shortfall and quickly provide a more realistic, robust threat for training aviation units.
- Interim BMP-2 upgrade. Currently, the OPFOR Regiment can not field enough forces to provide a realistic challenge against defending brigade combat teams. The NTC will complete internal VISMOD and MILES changes to the current BMP-1 and begin the transition to the BMP-2. The critical step is to change the BMP missile laser transmitter from an AT-3 to the AT-6. These product improvements will sustain challenging training scenarios between the OPFOR's current weapons platform and the future OPFOR Surrogate Vehicle (OSV).
- OPFOR surrogate vehicle (OSV)/BMP-2. The OSV/BMP-2 is an M113A3 chassis with a modified M2 (BFV) turret. It will replace the M551 Sheridan fleet for most OPFOR vehicles and more closely simulates the BMP-2 characteristics. It is a true infantry fighting vehicle capable of carrying a dismounted squad and provides training transfer between OPFOR missions and BLUEFOR MOS skills for 11M Fighting Vehicle Infantrymen. The common chassis and turret facilitate maintenance with similarity between the OPFOR and US mechanized forces and repair parts availability.
- OPFOR artillery upgrades. Indirect fire support is a critical facet to OPFOR operations and requires modernization to replicate a realistic capability into the 21st century. OPFOR capability options in the NTC instrumentation system already allow the change from 2S3 to 2S19 Howitzers, and from ARC-1 to ARC-1 ZOOPARK counter-fire radars. Software modifications to the NTC Simulated Area Weapons Effects (SAWE) system are necessary to accurately replicate BM-21 rocket artillery effects. Eye safe laser range finder equipment is needed to give the OPFOR its KRASNOPOL precision guided munitions capability. Additional force structure changes within the 11th ACR are necessary to enhance the fire support integration with other operating systems. The structure changes include a fire support element (FSE) at the regimental level, and howitzer batteries in the maneuver squadrons.

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National Training Center (NTC), Continued

OPFOR modernization (continued)

- OPFOR rotary wing aviation development. The OPFOR currently lacks the ability to portray a challenging rotary wing threat. The regiment is unable to conduct effective attack helicopter missions or support tactical air assaults. An OPFOR aviation mission needs statement established the requirement for six attack helicopters and the transport helicopter capability to conduct tactical air assaults with 110 soldiers in a single lift.
- OSV (future tank) procurement. The current T-80 VISMOD on the M551 Sheridan chassis can not be sustained properly to provide a realistic OPFOR threat to training units beyond the year 2003. The OPFOR heavy force model and doctrine is centered on main battle tank units with fire control and survivability characteristics readily available on the open market. These capabilities include thermal sights, laser range finders, mine and anti-tank counter measure devices, and increased survivability. Although introduction of the OSV BMP-2 will extend the life of the M551 Sheridan fleet for a short while, the M551 chassis' lack of future extended sustainability does not make it a logical choice on which to expend significant amounts of funding for wholesale product improvement. A suitable main battle tank is necessary to replace the M551 VISMOD NLT FY05. Although beyond the FY 2003 scope of this document, planning and resourcing must begin now to make the FY05 date a reality for fielding of the OSV main battle tank.

Land expansion

- The purpose of this project is to acquire and provide sufficient land maneuver area to support rotational training at the NTC. As a result of increasing sophistication, maneuverability, speed, lethality and OPTEMPO, the current lands at the NTC, with just over 50% in non maneuverable acreage, not adequate to realistically support the NTC's training of brigade sized units. Current land limitations allow a sector 40 KM in depth and at a maximum 30 km wide. The area of interest for a BCT is up to 100 KM with aviation attack operations up to 150km. Advanced technology and evolving doctrine which espouses dispersed movement and massing at the critical point and time to eliminate an objective can not be accommodated. Realistic logistical lines of support are not achievable. All of these things serve to give units training at the NTC a false sense of realism for combat operations. The proposed action acquires just over 300,000 acres adjacent to the eastern boundary of the NTC. More importantly, by allowing movement of logistics support bases from the current NTC into the expansion area, over 62,000 acres of maneuver area currently used to facilitate support elements will become available for maneuver purposes. This acquisition will significantly reduce training land shortfalls and expand the training area sufficiently to train units doctrinally.

Instrumentation- land expansion

- This initiative provides for the instrumentation and data collection capability for the land expansion area, utilizing relays or a fiber optic backbone. It includes SINCGARS, EPLRS, OCCS, RDMS, SAWE and a digital terrain map. It will monitor units operating in the field. The data collected will be utilized during the AAR process. This initiative can also serve as the baseline for the development/re-engineering of the overall system before the frequencies used by the RDMS upgrade go away in approximately eight years.

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National Training Center (NTC), Continued

Intelligence architecture

- The National Training Center is actively involved in pursuing options to expand the intelligence services provided to the rotational brigade to improve the training experience. As the intelligence community automation efforts to link the vast array of intelligence gathering platforms to ground maneuver units occurs, these future intelligence system capabilities will exceed the ability of the NTC to replicate intelligence gathering and analysis capabilities for intelligence systems in direct support of the ground maneuver brigade. Intelligence systems, both real and simulated, must be managed at echelons above brigade. Neither the capability nor the assets to accomplish this exist at the NTC. At a minimum, the need exists to develop something to replicate the Deployable Intelligence Support Element (DISE) in the 52nd Mech Division Tactical Operations Center. This initiative will ensure that intelligence collection and analysis capabilities remain on the NTC battlefield now and in the future.

Live fire targetry communicat-ions conversion

- The live fire targetry communications conversion initiative will accomplish three objectives. First, it will enable the NTC to conduct live-fire heavy brigade operations by thickening existing targetry and creating an MRR attack in Echo Valley. Second, it will increase the number of battalion training tasks currently being trained by adding five new task force scenarios. Finally, it will improve the safety, reliability and reporting aspects of the existing system by upgrading the target control system, targetry, and communications and instrumentation system. This project also provides for a second bunker complex in order to adequately control the increased scope of brigade live fire operations.

NLOS systems integration

- NLOS systems must be integrated into the NTC simulation system. The NLOS devices (Javelin, Paladin, etc.) would activate by system in the field, be monitored by the NTC instrumentation system, and their effects displayed by the CIS with battlefield effects played much as SAWE is now for artillery systems. This provides a more realistic environment in which to train where data can be captured and provided to the unit during AARs.

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National Training Center (NTC), Continued

Initiative roll-up

The table below rank orders NTC initiatives by funding source.

RDA Initiatives	OMA Initiatives	Other Initiatives
Spectrum management[1] OPFOR modernization[2] Instrumentation- land expansion[1] Intelligence architecture[3] Live fire targetry communications conversion NLOS systems integration[4]		Land expansion

[1]Not supported under CTC Program
[2]CTC Program supported in part under CTC OPFOR IFV, CTC OPFOR Tank, CTC OPFOR AV, CTC OPFOR WHL
[3]CTC Program supported under CTC ABCS Integration
[4]CTC Program supported under NTC OIS

Annex A

References

Overview

Introduction This annex contains required and related publications.

In this annex This annex contains the following topics.

Required Publications

Number	Title
The White House	A National Security Strategy for a New Century,
DoD	Defense Planning Guidance FY1998-2003 [SECRET]
JCS	Joint Vision 2010
JCS	National Military Strategy of the United States of America
DA	Army Distributed Interactive Simulation Master Plan with Distributed Interactive Simulation Program Update
DA	Army Model and Simulation Master Plan
DA	Army Plan, FY1998-2013 [SECRET NOFORN]
DA	Army Vision 2010
DA	POM FY98-03 [SECRET NOFORN]
AR 71-13	The Department of the Army Equipment Authorization and Usage Program
AR 350-50	Combat Training Center Program
FM 100-5	Operations
FM 100-60-series	OPFOR manuals
TR Pam 525-5	Force XXI Operations
TR Pam 525-66	Future Operational Capability

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Related Publications

Number	Title
SecDef	Annual Report to the President and the Congress
DA	Army FY98-12 RDA Plan
DA	United States Army Posture Statement FY98
AR 5-12	Army Management of the Electromagnetic Spectrum
AR 350-38	Training Device Policies and Management
AR 350-41	Training in Units
FM 25-100	Training the Force
FM 25-101	Battle Focused Training
TR Pam 25-33	Army Training Glossary
TRADOC	Tactical Engagement Simulation Master Plan
TR Reg 350-35	The Combined Arms Training Strategy
NSC	Training with Simulations
CTC Division	Combat Training Center Program Handbook

Annex B

Glossary

Overview

Introduction This annex contains acronyms and definitions used by this master plan.

In this annex This annex contains the following topics.

Acronyms

Acronym	Explanation
A/C	Aircraft
AAF	Army Airfield
AAR	After Action Review
AARS	After Action Review System
AASLT	Air Assault
ABCS	Army Battle Command System
ABMOC	Air Battle Management Operations Center
ABN	Airborne
ABO	Army Budget Office
AC	Active Component
ACC	Air Combat Command
ACE	Analysis Control Element/Armored Combat Earthmover
ACR	Advanced Concepts and Requirements/ Armored Cavalry Regiment
AD	Armored Division
ADA	Air Defense Artillery
AFATDS	Advanced Field Artillery Tactical Data System
AFB	Air Force Base
AFH	Army Family Housing
AFHC	Family Housing, Army Construction
AFSOF	Air Force Special Operations Forces
AG	Adjutant General
AGES	Air Ground Engagement System
AGR	Active Guard/Reserve
AI	Air Interdiction
AIMS-R	Automated Instructional Management System-Redesign
ALOC	Air Lines of Communication
ALRPG	Army Long Range Planning Guidance
ALRTP	Army Long Range Training Plan
AMC	Air Mobility Command/Army Materiel Command
AMP	Army Modernization Plan
AMSCO	Army Management Structure Code
ANGLICO	Air and Naval Gunfire Liaison Company
AO	Area of Operation
AOB	Advance Operational Base
APOD	Aerial Port of Debarkation
APOE	Aerial Port of Embarkation
AR	Armor
ARFOR	Army Force
ARM	Armored
ARNG	Army National Guard
ARTY	Artillery
ASAS	All Source Analysis System
ASAT	Anti-Satellite/Automated Systems Approach to Training

Continued on next page

Acronyms, Continued

Acronym	Explanation
A/V	Audio/Visual
ASET	Aircraft Survivability Equipment Trainer
ASG	Area Support Group
ASLT	Assault
AT	Army Training
ATACMS	Army Tactical Missile System
ATC	Army Training Command
ATCCS	Army Tactical Command and Control System
ATD	Advanced Technology Demonstration
ATDL	Army Training Digital Library
ATE	Advanced Training Experiment
ATGM	Anti-Tank Guided Missile
ATIMP	Army Training Information Management Program
ATK	Attack
ATSC	Army Training Support Center
AUTH	Authorized
AVCATT	Aviation Combined Arms Tactical Trainer
AVN	Aviation
AW	Air Warrior
AWACS	Airborne Warning and Control System
AWC	Army War College
AWE	Advanced Warfighting Experiment
AWMDS	Air Warrior Measurement Debriefing System
AWR	Army War Reserve
AWSIM	Air Warfare Simulation
BADS	Biological Agent Decontamination System
BAS	Biological Agent Simulation
BAT	Brilliant Anti-Tank
BBS	Brigade/Battalion Battle Simulation
BBX	Brigade Battle Exercise
BCBST	Brigade Command and Battle Staff Training
BCTP	Battle Command Training Program
BDE	Brigade
BDM	Bunker Defeat Munition
BFACS	Battlefield Functional Area Control Systems
BFV	Bradley Fighting Vehicle
BII	Basic Issue Item
BIS	Battlefield Information System
BLDG	Building
BLUEFOR	Blue Forces
BN	Battalion
BOS	Battlefield Operating System
BPC	Battle Projection Center

Continued on next page

Acronyms, Continued

Acronym	Explanation
BRIDGESIM	Bridge Simulator
BSB	Base Support Battalion
BSC	Battle Simulation Center
BTRY	Battery
BUR	Bottom-Up Review
C2	Command and Control
C2W	Command and Control Warfare
C3I	Command, Control, Communications, and Intelligence
C4I	Command, Control, Communications, Computers, and Intelligence
CA	Civil Affairs
CAL	Caliber
CALL	Center for Army Lessons Learned
CAMO	Camouflage
CAP	Capability
CAS	Close Air Support
CASCOM	Combined Arms Support Command
CAT	Category
CATS	Combined Arms Training Strategies
CATT	Combined Arms Tactical Trainer
CAV	Cavalry
CBS	Corps Battle Simulation
CBT	Combat
CCTT	Close Combat Tactical Trainer
CD-ROM	Compact Disk-Random Access Memory
CDS	Container Delivery System
CEOI	Communications-Electronics Operations Instructions
CG	Commanding General
CGSC	Command and General Staff College
CI	Counterintelligence
CIC	Combat Information Center
CINC	Commander-in-Chief
CIS	Core Instrumentation Subsystem
CISP	CTC-IS Plan
CIV	Civilian
CM	Claymore Mine
CMD	Command
CMTC	Combat Maneuver Training Center
CO	Company
COB	Civilian on the Battlefield
COC	Council of Colonels
COFM	Conduct of Fire Means
COG	Commander, Operations Group
COMINT	Communications Intelligence

Continued on next page

Acronyms, Continued

Acronym	Explanation
COMM	Communications
COMSEC	Communications Security
CONSOL	Consolidated
CONSTR	Constructive
CONTRACT	Contractor
CONUS	Continental United States
COTS	Commercial Off the Shelf
CPT	Captain
CPX	Command Post Exercise
CRC	Corps Response Cell
CS	Combat Support
CSA	Chief of Staff, Army
CSAR	Combat Search and Rescue
CSB	Corps Support Battalion
CSG	Corps Support Group
CSH	Combat Surgical Hospital
CSM	Command Sergeant Major
CSS	Combat Service Support
CSSCS	Combat Service Support Control System
CSSTSS	Combat Service Support Training Simulation System
CSUP	Command Security Upgrade Program
CTA	Common Table of Allowances
CTC	Combat Training Center
CTC-IS	CTC-Instrumentation System
CTCOD	Combat Training Centers Operations Division
CTR	Center
CTSD	Combat Training Support Directorate
D	Day/Division
DA	Department of the Army
DAMPL	Department of the Army Master Priority List
DCSRM	Deputy Chief of Staff for Resource Management
DCSOPS	Deputy Chief of Staff for Operations and Plans
DCST	Deputy Chief of Staff for Training
DE	Division Equivalent
DEH	Directorate of Engineering and Housing
DEPMEDS	Deployable Medical Systems
DF	Direction Finding
DIR	Directorate/Director
DIS	Distributed Interactive Simulation
DISE	Deployable Intelligence Support Element
DISCOM	Division Support Command
DISNET	Distributed Interactive Simulation Network
DIV	Division

Continued on next page

Acronyms, Continued

Acronym	Explanation
DIVARTY	Division Artillery
DIVENG	Division Engineer
DMA	Defense Mapping Agency
DOD	Department of Defense
DODDS	Department of Defense Dependents Schools
DPG	Defense Planning Guidance
DRC	Division Response Cell
DS	Direct Support
DSA	Division Support Area
DTLOMS	Doctrine, Training, Leader Development, Organization, Material, and Soldiers
DTOC	Division Tactical Operations Center
E	Exercise
EA	Executive Agent
EAD	Echelons Above Division
EDM	Enlisted Distribution Management
EDP	Enlisted Distribution Plan
EFOG-M	Enhanced Fiber-Optic Guided Missile
EIS	Environmental Impact Statement
EMCC	Exercise Maneuver Control Center
EMP	Electromagnetic Pulse
EN/ENG	Engineer
ENCATT	Engineer Combined Arms Tactical Trainer
ENL	Enlisted
EOR	Element of Resource
EPLRS	Enhanced Position Location Reporting System
EPP	Extended Planning Period
ERI	Engineer Restructuring Initiative
EUSA	Eighth US Army
EXCON	Exercise Control
EW	Electronic Warfare
EXFOR	Experimental Force
FA	Field Artillery
FAA	Federal Aviation Administration
FAADS	Forward Area Air Defense System
FAC	Facility
FAD	Funding Authorization Document
FAM	Family
FASCAM	Family of Scatterable Mines
FH	Family Housing
FID	Foreign Internal Defense
FIST	Fire Support Team
FM	Field Manual

Continued on next page

Acronyms, Continued

Acronym	Explanation
FOB	Forward Operating Base
FOF/F-O-F	Force-on-Force
FORSCOM	Forces Command
FSATS	Fire Support Automated Test System
FSE	Fire Support Element
FSU	Former Soviet Union
FT	Fort
FTX	Field Training Exercise
FUE	First Unit Equipped
FW	Fixed Wing
FWD	Forward
FY	Fiscal Year
GAO	Government Accounting Office
GFRE	Ground Forces Readiness Enhancement
GOSC	General Officer Steering Committee
GPS	Global Positioning System
GRD	Ground
GS	General Support
GSA	General Services Administration
GSR	General Support-Reinforcing
GTA	Grafenwoehr Training Area
HELO	Helicopter
HF	High Frequency
HG	Hand Grenade
HIC	High-Intensity Conflict
HLA	High Level Architecture
HMMWV	High Mobility Multipurpose Wheeled Vehicle
HQ	Headquarters
HQDA	Headquarters, Department Of The Army
HSG	Housing
HTA	Hohenfels Training Area
HTI	Horizontal Technology Integration
HUMINT	Human Intelligence
IAW	In Accordance With
ID	Identification/Infantry Division
IEEE	Institute of Electrical and Electronics Engineers
IEW	Intelligence/Electronic Warfare
IFV	Infantry Fighting Vehicle
IMETS	Intelligence Meteorological System
IMMA	Installation Material Maintenance Activity
IMO	Information Management Office/Officer
IN/INF	Infantry
INDIV	Individual

Continued on next page

Acronyms, Continued

Acronym	Explanation
INRMP	Integrated Natural Resource Management Plan
INSCOM	Intelligence and Security Command
INSTR	Instrumentation/Instrumented
INTEG	Integration
Intel	Intelligence
IS	Instrumentation System
ISB	Intermediate Staging Base
ITAM	Integrated Training Area Management
JAAT	Joint Air Attack Team
JAMB	Joint Acquisition Management Board
JCS	Joint Chiefs of Staff
JDISS	Joint Deployable Intelligence Support System
JEC	Joint Executive Committee
JI	Joint Inspection
JRTC	Joint Readiness Training Center
JSOC	Joint Special Operations Command
JTCTS	Joint Tactical Combat Training System
JTF	Joint Task Force
JUC	Joint Users Committee
K	Thousand
KM	Kilometer
LDC	Leadership Development Center
LF	Live Fire
LISDIS	Light and Special Division Interim Sensor
LOC	Lines Of Communications
LOG	Logistical/Logistics
LOS	Line of Sight
LRSD	Long-Range Surveillance Detachment
LT	Light
LTP	Leader Training Program
LWU	Land Warfare University
LZ	Landing Zone
M	Million
MACOM	Major Command
MAJ	Major
MANPAD	Man-Portable Air Defense
MASH	Mobile Army Surgical Hospital
MATDEV	Material Developer
MCA	Military Construction, Army
MCAGCC	Marine Corps Air/Ground Combat Center
MCS-ENG	Maneuver Control System-Engineer
MDEP	Management Decision Package
MECH	Mechanized

Continued on next page

Acronyms, Continued

Acronym	Explanation
MED	Medium
MEDEVAC	Medical Evacuation
MEL	Military Educational Level
METL	Mission Essential Task List
METT-T	Mission, Enemy, Terrain, Troops and Time Available
MG	Machine Gun
MI	Military Intelligence
MICLIC	Mine Clearing Line Charge
MIL	Military
MILCON	Military Construction
MILES	Multiple Integrated Laser Engagement System
MIR	Motorized Infantry Regiment
MM	Millimeter
MOC	Management of Change
MOD	Modernization
MODSAF	Modular Semiautomated Forces
MOGAS	Motor Gasoline
MOS	Military Occupational Skill
MOUT	Military Operations on Urbanized Terrain
MP	Master Plan
MRB	Motorized Rifle Battalion
MRC	Major Regional Contingency
MRL	Multiple Rocket Launcher
MRR	Motorized Rifle Regiment
MSC	Medical Service Corps
MSE	Mobile Subscriber Equipment
MSN SPT	Mission Support
MTOE	Modified Table of Organization and Equipment
MTWS	Marine Air Ground Task Force Tactical Warfare Simulation
MVR	Maneuver
MWLD	Man-Worn Laser Device
NAF	Nonappropriated Funds
NATO	North Atlantic Treaty Organization
NAVFOR	Naval Forces
NCO	Noncommissioned Officer
NG	National Guard
NGB	National Guard Bureau
NGO	Nongovernmental Organization
NLOS	Non-Line of Sight
NMS	National Military Strategy
NOD	Night Observation Device
NOFORN	No Foreign Nationals
NP	Nonpersistent

Continued on next page

Acronyms, Continued

Acronym	Explanation
NSC	National Simulations Center
NTC	National Training Center
NTV	Non-Tactical Vehicle
NVD	Night Vision Device
O&M	Operations and Maintenance
O/C	Observer/Controller
O/C/T	Observer/Controller/Trainer
OCA	O/C Academy
OCCS	Observer/Controller Communications System
OCONUS	Outside Continental United States
ODP	Officer Distribution Plan
ODT	Overseas Deployment for Training
OFF	Officer
OIS	Objective Instrumentation System
OMA	Operations and Maintenance, Army
OPA	Other Procurement, Army
OPFOR	Opposing Force
OPNS/OPS	Operations
OPORD	Operations Order
OPSEC	Operations Security
OPSGP	Operations Group
OPTEC	Operational Test and Evaluation Command
OPTEMPO	Operating Tempo
ORD	Operational Requirements Document
OSD	Office of The Secretary of Defense
O/T	Observer/Trainer
OSTV	OPFOR Surrogate Tracked Vehicle
OSV	OPFOR Surrogate Vehicle
OSWV	OPFOR Surrogate Wheeled Vehicle
OTSA	OPTEC Threat Support Agency
P	Persistent
PA	Physician's Assistant
PAM	Pamphlet
PAO	Public Affairs Officer
PBG	Program and Budget Guidance
PDD	Player Detection Device
PDU	Player Data Unit
PE	Program Element
PEG	Program Evaluation Group
PERSCOM	US Total Army Personnel Command
PFP	Partnership For Peace
PGS	Precision Gunnery System
PH	Phase

Continued on next page

Acronyms, Continued

Acronym	Explanation
PIP	Produce Improvement Program
PLT	Platoon
POM	Program Objective Memorandum
POS/NAV	Positioning and Navigation
PPBES	Planning, Programming, Budgeting, and Execution System
PPBS	Planning, Programming, and Budgeting System
PREP	Preparation
PREPO	Prepositioned
PRI	Priority
PRT	Program Resources Team
PST	Program Support Team
PSYOP	Psychological Operations
PUB	Publication
PVO	Private Volunteer Organization
PZ	Pick-Up Zone
Q	Quarterly
RADAR	Radio Detection and Ranging
RC	Reserve Component
RDA	Research, Development, and Acquisition
RDMS	Range Data Measurement subsystem
RDTE	Research, Development, Test, and Evaluation
REC	Reconnaissance
REG	Regulation
REMBASS	Remotely Monitored Battlefield Sensor System
RETS	Remoted Target System
RF	Radio Frequency
RGR	Ranger
RISTA	Reconnaissance, Intelligence, Surveillance, and Target Acquisition
RMO	Resource Management Office/Officer
ROC	Required Operational Capability
RPM	Real Property Maintenance
RQMT	Requirement
RQMT/RQMTS	Requirements
RSO&I	Reception, Staging, Onward Movement, and Integration
RSS	Radar Simulation System
RTB	Reserve Training Battalion
RTD	Reserve Training Detachment
RWS	Remote Work Stations
S&T	Science And Technology
SAAF	Small Arms Alignment Fixture
SAF	Semiautomated Forces
SAMMS	Standard Army Maintenance Management System
SASO	Stability and Support Operations

Continued on next page

Acronyms, Continued

Acronym	Explanation
SAT	Small Arms Transmitter
S-UAV	Short Range- Unmanned Aerial Vehicle
SATS	Standard Army Training System
SAWE	Simulated Area Weapons Effect
SAWE-RF	Simulated Area Weapons Effect by Radio Frequency
SE	Synthetic Environment
SEAL	Sea-Air-Land Team
SECDEF	Secretary Of Defense
SEE	Small Emplacement Excavator/ Software Engineer Environment
SEP	Synthetic Environment
SF	Special Forces
SFC	Sergeant First Class
SFODA	Special Forces Operational Detachment A Team
SFODB	Special Forces Operational Detachment B Team
SHF	Super High Frequency
SIB	Separate Infantry Brigade
SIDS	Secondary Imagery Dissemination
SIFS	Signal Intelligence Feedback System
SIGINT	Signal Intelligence
SIGS	Secondary Imagery Generation System
SIM	Simulation
SIM	Simulation Centers
SIMITAR	Simulation In Training for Enhanced Readiness
SIMNET	Simulation Network
SINCGARS	Single Channel Ground and Airborne Radio System
SIO	Standard Installation Organization
SJA	Staff Judge Advocate
SME	Subject Matter Expert
SMECS	Spectrum Monitoring and Engineering Control Subsystem
SMIFS	Spectrum Monitoring Intelligence Feedback System
SOA	Special Operations Aviation
SOAR	Special Operations Aviation Regiment
SOCCE	Special Operations Command and Control Element
SOF	Special Operations Forces
SOP	Standing Operating Procedures
SOTD	Special Operations Training Detachment
SP	Self-Propelled
SPBS-R	Standard Property Book System- Revised
SPIRIT	Special Purpose Integrated Remote Intelligence Terminal
SPT	Support
SQD	Squad
SSSC	Self-Service Supply Center
STAARS	Standard After Action Review System

Continued on next page

Acronyms, Continued

Acronym	Explanation
STARS	Surveillance Target Attack Radar
STOL	Short Take-Off and Landing
STOW	Synthetic Theater Of War
STOW-A	Synthetic Theater Of War-Architecture
STRAC	Standards in Training Commission
STRICOM	Simulations, Training, and Instrumentation Command
STS	Simulation Training Subsystem
TAA	Total Army Analysis
TACFIRE	Tactical Fire Direction System
TACON	Tactical Control
TACP	Tactical Air Control Party
TACSAT	Tactical Satellite
TACSATCOM	Tactical Satellite Communications
TACSIM	Tactical Simulation
TADSS	Training Aids, Devices, Simulators, And Simulations
TAFF	Training and Analysis Feedback Facility
TAP	The Army Plan
TARP	Tactical Aerial Reconnaissance Patrol
TBD	To Be Determined
TCR	Training Capability Requirement
TDA	Table Of Distribution and Allowances
TDY	Temporary duty
TEMO	Training, Exercises and Military Operations
TES	Tactical Engagement Simulation
TF	Task Force
THP	Take Home Package
TISA	Troop Issue Subsistence Activity
TM	Team
TMA	Training Mission Area
TNET	Training Network
TNG	Training
TNG FAC	Training Facility
TNG UNIT	Training Unit
TOC	Tactical Operations Center
TOE	Table of Organization and Equipment
TOFM	Theater Opening Force Module
TOP	Training Outreach Program
TPO	TRADOC Project Office
TR/TRADOC	Training And Doctrine Command
TRAC	TRADOC Analysis Center
TSP	Training Support Package
TTS	Tank Thermal Sight
TV	Television

Continued on next page

Acronyms, Continued

Acronym	Explanation
UAV	Unmanned Aerial Vehicle
UFR	Unfinanced Requirement
UHF	Ultra High Frequency
UIC	Unit Identification Code
UK	United Kingdom
ULLS-G	Unit Level Logistics System-G
ULLS-S4	Unit Level Logistics System-S4
UN	United Nations
US	United States
USAACS	US Army Armor Center and School
USAADAS	US Army Air Defense Artillery School
USACASCOM	US Army Combined Arms Support Command
USACGSC	US Army Command and General Staff College
USACOM	US Atlantic Command
USAES	US Army Engineer School
USAF	US Air Force
USAFAS	US Army Field Artillery School
USAFE	US Air Force, Europe
USAICS	US Army Infantry Center and School
USAIS	US Army Intelligence School
USAR	US Army Reserve
USARC	US Army Reserve Command
USAREUR	US Army, Europe
USARPAC	US Army, Pacific
USARSO	US Army, South
USASOC	US Army Special Operations Command
USATSC	US Army Training Support Center
USEUCOM	US European Command
USFS	US Forestry Service
USMC	US Marine Corps
USN	United States Navy
USPACOM	US Pacific Command
USSOCOM	US Special Operations Command
USSOUTHCOM	US Southern Command
VDD	Vehicle Detection Device
VEH	Vehicle
VHF	Very High Frequency
VISMOD	Visual Modification
VSTS	Vehicle System Test Set
VTC	Video Teleconference
W	With
WAM	Wide Area Munitions
WARMOD	Warfighter Modernization

Continued on next page

Acronyms, Continued

Acronym	Explanation
WARSIM 2000	Warfighter Simulation 2000
WCOPFOR	World Class OPFOR
WF	Warfighter
WFLA	Warfighting Lens Analysis
WFX	Warfighter Exercise
WHL	Wheel
WMD	Weapons of Mass Destruction
WPN/WPNS	Weapon/Weapons
WSMR	White Sands Missile Range
WW	World War

Continued on next page

Definitions

Term	Definition
After Action Review	A professional discussion which focuses on the training objective of ongoing or completed training. It is a review of a training activity that allows soldiers to discover for themselves what happened and why. [TR Pam 25-33]
Battle Labs	A means to develop capabilities for a Force Projection Army that begins where battle appears to be changing and that encourages experimentation via simulations or prototypes using real soldiers and real units to determine technology insertion or new requirements. Six Battle Labs are operated by TRADOC: Battle Command (Fort Leavenworth/ Fort Gordon/Fort Huachuca), Depth and Simultaneous Attack (Fort Sill), Mounted Battle Space (Fort Knox), Dismounted Battle Space (Fort Benning), Early Entry Lethality and Survivability (Fort Monroe), and Combat Service Support (Fort Lee).
Brigade Operations	Combined arms and services training of a brigade and its assets that are doctrinally present for the approved scenario(s) and in conformance with the sponsoring MACOM approved troop list. CTC specific brigade operations concepts at the CTCs are found at chapters 2-5.
Certification	Verification of proficiency in a given task or tasks. [TR Pam 25-33]
Combat Training Center Program	Provides realistic joint service and combined arms training. It is designed to provide units with the most realistic battlefield available— primarily in the live simulation environment. Four components: Battle Command Training Program (uses only constructive simulations- Corps Battle Simulation (CBS-Army), Air Warfare Simulation (AWSIM-Air Force), and Tactical Simulation (TACSIM-Army)), Combat Maneuver Training Center (uses constructive simulation- BBS), Joint Readiness Training Center (uses constructive simulation-Janus), and National Training Center.
Combat Training Center Community	Government and industry organizations and personnel involved in the conceptualization, initiation, design, development, test, contracting, production, deployment, logistical support, and training of system and nonsystem TADSS, for use at, or in support of, CTC operations.
Defense Simulation Internet	A wide band telecommunications network operated over commercial lines with connectivity to both military and civilian satellites allowing users to be linked on a world-wide, wide area network.

Continued on next page

Definitions, Continued

Term	Definition
DIS Compatibility	Two or more simulations/simulators are DIS compatible if they are DIS compliant and their models and data sent and interpret PDUs support the realization of a common operational environment among the systems (coherent in time and space).
DIS Compliant	The ability to send and receive protocol data units in accordance with the DIS Standard (IEEE 1278); a specific statement must be made regarding each PDU.
DIS Interoperable	Two or more simulations/simulators are DIS interoperable for a given exercise when their performance characteristics support a fair fight to the fidelity required for the exercise.
Distributed Interactive Simulation	A synthetic environment within which humans may interact through simulation(s) at multiple sites networked using compliance architecture, modeling, protocols, standards, and data bases. Specific definition applied to each word. DIS also describes a class of interlinked and interoperable simulators maintaining a separate view of the common synthetic environment. DIS provides the technical underpinnings for the STOW effort. When fully developed, DIS simulations and simulators will permit maneuver, gunnery, C4I, CS, and CSS training in seamless exercises distributed across a number of installations using both the DSI and commercial wide area networks. See DIS Master Plan.
Modernization	The continuous process of integrating new doctrine, training, organization, and equipment to develop and field, warfighting capability for the Force Projection Army.
Modularity	A force design methodology that establishes a means to provide interchangeable, expandable, and tailorable force elements
Observer/Controller	A subject matter expert who teaches, coaches, mentors, and provides administrative control and constructive feedback to participants during a training exercise.

Continued on next page

Definitions, Continued

Term	Definition
Simulation	To feign, to obtain the essence of, without the reality of warfare. In the DIS domains, everything short of actual combat is a simulation. Three categories: • Live— real equipment and soldiers operating in the field, such as on an exercise at the NTC, but short of actual combat. • Constructive— mathematical models used as a tool to support collective training (battalion commanders and staffs through Army theater- CBS, CSSTSS, BBS) and in individual leadership training (Janus) and analytical applications (Janus and EAGLE). May be used with or without human interaction. sometimes referred to as war game models. • Virtual— simulators interacting within a virtual reality environment and possibility with other simulators. Operational examples are the M1 and M2 found at various Army posts. Future examples will be the combined arms tactical trainer. [Army DIS MP]
Synthetic Environment Program	The specific application of existing legacy systems to AWEs.
Synthetic Theater of War	The ultimate overriding vision of a complete virtual battlefield.
Synthetic Theater of War-Architecture	Consists of the legacy systems (e.g., BBS, Janus) that will take us to the edge of STOW.
Synthetic Training Environment	Consists of tools, organizations, and processes; interacts across TEMO, ACR, and RDA domains; links to synthetic information environment; and allows actual combat systems, manned simulations, and other simulations to exercise on a virtual battlefield.

Annex C

CTC Capability Profiles

Overview

Introduction

This annex contains capability profiles for the CTC Program and its CTCs at the end of FY03.

Objectives

This annex will—

- provide the summarized/consolidated capabilities of the CTCs at the CTC Program level—
  - by CTC, by pillar and
  - consist of a page insert for periodic updating
- provide the capabilities of each CTC—
  - by pillar and
- consist of page inserts for periodic updating.

In this annex

This annex contains the following slides.

Annex D

CTC Program Resourcing

Overview

Introduction

This annex contains—
- the OMA unfinanced requirements categories and
- the access information to the current FY master requirements list and mini-POM submission for the CTCs and CTC support directorates.

Objectives

This annex will—
- define the unfinanced requirement categories and
- provide the access information for the OMA master requirements list for the CTCs and CTC support activities
  - by CTC and CTC support activities, by description, by command, with a MACOM summary and
  - consist of page inserts for periodic updating
- provide the access information for the POM/mini-POM submission for the CTCs and CTC support activities—
  - by CTC and CTC support activity, by description, by FY and
  - consist of page inserts for periodic updating.

Unfinanced requirement categories

OMA unfinanced requirements are categorized as follows—
- Category one: sustainment (core requirements that maintain approved missions and capabilities).
- Category two: replacement (deferrable costs that modernize, correct shortfalls/deficiencies, or inefficient equipment/contracts.
- Category three: growth (new mission requirements/capabilities approved by senior Army leadership.

Access

The OMA requirements list and POM/mini-POM submission information is available through the CTC Program manager (DCST, TRADOC, ATTN: ATTG-RC, Fort Monroe, VA 23651-5000).

Annex E

CTC Program RDA Initiatives

Overview

Introduction This annex contains the CTC Program's RDA initiatives list**.**

Objectives This annex will— provide the CTC Program RDA initiatives list

In this annex This annex contains the CTC Program RDA initiatives list, to include crosswalks for subcomponents and Training GOSC prioritization.

Annex F

CTC 2010 Visions

Overview

Introduction This annex provides the vision 2010 briefs of the respective CTCs.

Background Vision 2010 briefs dovetail with Army Vision 2010.

Vision 2010 The following briefs reflect the respective CTC vision 2010 charts. These briefs are designed to be loose-leaf inserted/ updated.

Annex G

Opposing Forces (OPFOR)

Overview

Introduction

This annex to the Combat Training Center Master Plan describes the mission, vision, and initiatives of the OPFOR that supports the CTC Program. This annex will be used as the OPFOR program baseline requirements document for materiel development and force structure. This annex is a living document, which will be reviewed every two years.

Objectives

This annex will—

- provide a direction for OPFOR force development in the near and far term periods
- provide initiatives for the FY 98-03 POM
- provide a portion of annual training guidance for OPFOR Commanders and
- consist of page inserts for semi-annual updating.

Assumptions

- OPFOR TADSS will be funded by the TMA.
- OPFOR will participate in simultaneous exercises involving two or more training simulations (live, constructive or virtual).
- OPFOR systems will be fully compatible with and fully integrated into the CTC battlefield.
- OPFOR force structure will keep pace with training requirements.
- OPFOR will continue as a capabilities-based, training force.
- OPFOR will increasingly participate in combat experimentation and testing.

Army situation—friendly

The Army will continue to provide forces capable of supporting the National Security Strategy and National Military Strategy. Missions will include: MRCs, overseas presence, contingency operations, and SASO.

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Opposing Forces (OPFOR), Continued

Mission

The CTC OPFOR replicates elements of maneuver units, airborne and special operations units, local and regional forces to provide the Army an advanced level of joint and combined arms training under tough, realistic conditions from operations other than war through high intensity, nuclear threshold environments. The OPFOR:

- is uncompromising and will fight according to doctrine and orders of its higher headquarters to support training objectives.
- will provide a data source for DTLOMS improvements throughout the Army and
- will support focused training rotations, AWEs and other testing activities as required.

Vision

The OPFOR will provide an thinking, flexible, capabilities-based opponent for units undergoing CTC training. The OPFOR supports training in live, constructive, and virtual training domains across the entire conflict spectrum with primary training at the CTCs and secondary training at the client home station.

- The maneuver CTCs will replicate elements of divisions, airborne and special operations units, local and regional forces. The weapons, fighting vehicles, equipment, and uniforms will evolve to provide replication from SASO through a regional, near-peer competitor capable of conducting high intensity, mechanized operations in a nuclear threshold environment. The OPFOR at each center will replicate different types of TRADOC-approved models to provide a flexible sparring partner for each center's training audience.

- The BCTP WCOPFOR will replicate the capabilities and organization of armies, corps, airborne and special operations units, local and regional forces and civilians to train US Army Corps, Divisions, Brigades, and Navy, Marine and Air Force elements that participate in BCTP training. The WCOPFOR will continue as a contractor assisted battle staff, supported by computerized, SAF, to replicate the doctrine and tactics of a regional, near-peer adversary. The WCOPFOR will normally replicate a capabilities-based OPFOR, but may replicate a real world threat, when required by the training scenario.

- OPFOR resource priorities. OPFOR resource priorities focus on providing the training tools to sustain the mission of the CTCs— providing combat, combat support, and combat service support leaders and their units an advanced collective training experience. The OPFOR doctrine developer (TRADOC DCSINT) and combat/training developer (TRADOC DCST) will work to provide efficient and effective training initiatives to meet CTC needs. These priorities include:
  - Replacement of obsolete materiel with new, more capable, easily maintainable materiel, which is in use by the standing force.
  - Embed training capabilities in new equipment to allow OPFOR soldiers to sustain MOS skills.
  - Utilize resources outside the CTC Program (e.g., INSCOM) to provide low density materiel that portrays unique OPFOR capabilities.
  - Embed tactical engagement simulation (TES) capability across all mission areas and simulation domains.

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Opposing Forces (OPFOR), Continued

Vision (continued)

- Force Structure. The OPFOR will continue as a mix of units based on either a TDA or MTOE.
  - The maneuver CTC OPFOR capability to fully challenge the training brigade(-) will be constrained by insufficient materiel and personnel. The goal will be each CTC OPFOR possessing BOS to challenge training units based on force ratios outlined in that unit's Army Training Evaluation Program - Mission Training Plan (ARTEP-MTP). Given fiscal and personnel constraints, OPFOR will attempt to maintain fidelity in terms of doctrinal replication and technology. However, the maneuver CTC OPFOR will not possess the materiel and personnel to portray the maximum threat doctrinal norms outlined in ARTEP-MTP for offensive combat operations against a two battalion, brigade (-) TF.
  - The maneuver CTC OPFOR will use augmentation from Active, Reserve, and NG components to assist in meeting training requirements. Augmentation will take the form of combat, combat support and combat service support individuals and units.
  - The BCTP WCOPFOR will provide support for training corps, divisions, brigades, special operations forces and selected joint exercises.

- Science and technology. RDA funding will be constrained due to continued austere fiscal climate and limit modernization to minimum affordability. The OPFOR program will look for limited RDA funding beginning in FY02 to develop key assets to sustain capabilities. For future materiel, OPFOR programs must leverage against the Army's modernization efforts to provide sustainable systems.
  - OPFOR RDA effort will use national intelligence sources to identify current and future threat materiel capabilities and replicate those capabilities in a timely manner.
  - OPFOR RDA efforts will keep pace with Army modernization and intelligence assessments to provide near-peer technology capabilities and allow the OPFOR to fully challenge modernized training units. This will focus on modernization by component but will include a restricted number of new acquisitions.
  - OPFOR will use the CTC funding process to secure RDA funding.

- System Acquisition. Affordability will continue to dictate that OPFOR programs will forgo some needed capabilities.
  - OPFOR will leverage other Army organizations to provide unique, low density battlefield operating system capabilities.
  - OPFOR program will sustain efforts to maintain the direct fire capability at the FY 96 levels
  - Focus will be placed on replacement of obsolete, costly systems with systems that are sustainable by the standing force.
  - Materiel requirements will be generated for critical systems for all BOS.
  - OPFOR will compete in the CTC/TMA process for funding. Funding goal will be to maintain a realistic capability to challenge training units in all BOS.
  - When necessary to meet training conditions for limited periods of time (e.g., AWEs), CTCs will leverage unit (TOE) capabilities, outside augmentation and contractor provided capabilities.

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Opposing Forces (OPFOR), Continued

Vision (continued)

- Training Force XXI. The future Army (Force XXI) must be prepared to fight in the full spectrum of operational environments. Force XXI operations will place greater demands on soldiers and leaders than any previous combat operation. The Army will build future operational concepts around its greatest capability, quality soldiers and leaders. To meet the changes knowledge based operations will bring to DTLOMS, the OPFOR must replicate a near-peer competitor to fully challenge Force XXI units.
  - Doctrine. The OPFOR will continue to be doctrinally based. Doctrine will define a combatant force that serves as a near-peer competitor in live, constructive and virtual simulations. This guidance will provide the doctrine, tactics, and limited techniques of OPFOR operations. Consistency across all training levels and domains will provide Force XXI leadership the ability to build upon sequential and hierarchical events. OPFOR doctrine will be a living document incorporating real world, emerging doctrine, tactics, techniques and procedures. It will be incorporated into classroom instruction to meet the requirement for a generic training threat.
  - Training. OPFOR will be fully integrated into Army XXI training strategy to provide link between classrooms and CTCs. OPFOR will participate in simultaneous, multidimensional simulations (e.g., live and constructive), involving units at CTC and home station. However, training focus will continue to be at the brigade level at the maneuver CTCs. OPFOR training will be affordable and will replicate as closely as possible actual operations. OPFOR training will support the active, Reserve and NG components as they execute operations at the tactical, operational and strategic level. OPFOR must continue to train its soldiers in basic and advanced MOS skills. The OPFOR will meet and fully support Army's goals of environmental stewardship in sustaining the CTCs' limited, live training environment.
  - Leader Development. The OPFOR will provide the key pillar of the realistic, demanding conditions to train the Army's future leaders.
  - Organizations. See above.
  - Materiel. See above.
  - Soldiers. The OPFOR will provide continuing opportunities for soldiers to practice their critical MOS tasks by designing OPFOR materiel with Army standard components.

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Opposing Forces (OPFOR), Continued

BOS/ modernization/ TCRs

The following provides a direction and time line for future OPFOR capabilities. The capabilities are the average for the given time period. Systems show in parentheses are indicative of a baseline and provided as an example system. The periods identify the operational status of each capability. TRADOC DCSINT (ATIN-O) will confirm each RDA start and first unit equipped date with national intelligence agencies. Capabilities shown can be cumulative when applied to associated systems. System names (in parentheses) are shown as representative platforms based upon technology, and are not intended to dictate actual names for CTC replication solutions.

Program	Near-Term (FY98-03)	Mid-Term (FY04-08)	Far-Term (FY09-13)
Intelligence			
• electronic warfare			
• comm EW	integrated EW attack capability to locate HF/VHF limited jam HF/UHF	jam HF/VHF	improved jam HF/UHF
• non-comm EW	capability to DF radar	limited jamming	freq following jammer
• frequency hopping (FH) comm EW	broad band jam; limited DF	cap to DF/locate	freq following jammer
• expendable jammers		available	full availability
• satellite comm EW	cap to detect; no jam		
• heliborne EW	limited jam HF/VHF	integrated EW attack	
• GPS EW	no capability	limited jam capability	increased jam capability
• reconnaissance, surveillance, target acquisition (RSTA)			
• electro-optic systems	active IR/1st gen II/TI/laser range finder	image intensifiers/1st gen thermal imager	3rd gen II/2nd gen TI
• acoustic sensors		remote acoustic sensor w/seismic	multi-sensor platforms
• counter-mortar/artillery	multi-target track improved ECCM	multi-target track improved ECCM	increased target load longer range
• surveillance radar	ground-based portable (40km)	GSR and abn, 180km range	abn/UAV detection 250km, multi-target track

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BOS/modernization/TCRs (continued)

Program	Near-Term (FY98-03)	Mid-Term (FY04-08)	Far-Term (FY09-13)
Maneuver			
• tank	(T-72M1) laser warning receiver 1st generation thermal freq hop radio ERA 1	(T-72AG) ATGM jammer gun launch ATGM ERA 2 thermal camouflage	(T-90S) anti-laser ctr measure hard kill APS radar camouflage
• IFV	(BMP-2) engine/grenade smoke	improved armor thermal sight	(BMP-3) 100mm main gun AT-10, 30mm secdry
• wheeled heavy armored combat vehicle	(BTR-80A) 30mm cannon, engine smoke, smoke grenades	(BTR-80A) integrated AT-14/turret improved armor	(BTR-80A) AT-14 follow-on
• armored reconnaissance vehicle	(PRP-4M) rangefinder/radar/night vision	improved armor improved sensors	(BRM-3) 45mm cannon ATGM (man port) improved sensors
• armored personnel carrier	(BTR-70)	(BTR-80A) 30mm cannon engine/smoke grenades	(BTR-80a) AT-14 integration add-on armor
• anti-tank guided missiles • gun-launched ATGM	(AT-10/11) manual target track LBR guidance, LOS range - 5km	(AT-10/11) manual track, TI LBR, LOS range -5km	flyover/shoot down auto-track, adv sights LBR range 6 km
• vehicle-mounted ATGM	(TOW-2, HOT-2, AT-5) manual track, TI sight SACLOS range 3.75-5km	(TWO-2A, HOT-3, AT-5m) CM resistant	(TOW-2A/B, HOT-3) CLOS/LBR, CM hard TI sight, auto track range 4-5km+
• man/crew portable ATGM	(AT-4B, MILAN2) manual track; thermal sights; 2.5km range	(MILAN3,AT-13) ECOM; tandem warhead	(MILAN3; AT-13) warhead improvements
• heliborne ATGM	(TOW2, HOT 2) SACLOS; manual track 5km	(TOW2A, HOT 3) SACLOS; manual track 5km	(HELLFIRE, ATAKA) LBR guidance; auto track

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BOS/modernization/TCRs (continued)

Program	Near-Term (FY98-03)	Mid-Term (FY04-08)	Far-Term (FY09-13)
Maneuver (continued) • directed energy weapon • laser • radio frequency	blinder, manual acq., fixed freq. (AR/mech/IN forces) no capacity	optical augmentation acq.; AR/mech/IN forces terrorist threat	tuneable freq.; tank subsystem countermine device
Fire Support • gun/howitzer	(2S3M) 30 km range HE, HE-FRAG, RAP 3 rd/min	(2S19) DPICM. AT/AP mines HE-BB, ADHPM 4 rd/min	(G-6) 39 km range
• multiple rocket launcher	(BM-21), 20 km range HE-FRAG, chemical 40 rds/20 sec	(PRIMA) DPICM, increase lethality 50 rds/20 sec	227mm MRL, 32+ km range DPICM, AT mine, BAT 12 rds/24 sec
• mortars	(CH TYPE 64) 120mm 5.7 km range HE, WP, IR hHoming; ILL; 8 rd/min	(RU 2B16) gun/MTR 800m D/12km indirect HE-laser guided, HEAT 6 rd/min	(RU 2S23) gun/MTR 800mD/13km indirect AT mine, DPICM self locating (GPS)
• AT gun	(T/MT-12) APFSDS;HEAT;AT-10	(T/MT-12)	(2A45) APFSDS;HAET:AT-11 night sights
Air Defense • AAA- towed	(ZU-23-2) optical sight	electro-optic sight FLIR, automated data distribution	hybrid gun/missile radar search queuing & auto-fire control
• AAA- SP	(ZSU-23-4) integrated radar/fire control, full stabilization	(2S6) search/track radar gun/missile integrated fire control	integrated gun/missile improved acquisition improved fire control
• MANPADS	(SA-18) range ~7 km	(SA-18 follow-on) improved seeker ECCM - flares	(advanced SA-18) imaging seeker night vision/FLIR
• short range SAM	(ROLAND) range ~7 km acquisition/track radar optical sight	(ROLAND M3S) range 8 km passive electro-optic sight, improved radar	(ROLAND follow-on) improved range improved fire control

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BOS/modernization/TCRs (continued)

Program	Near-Term (FY98-03)	Mid-Term (FY04-08)	Far-Term (FY09-13)
Engineer			
• bridge	T-55, MLC 50 20m span	T-72, MLC 50/60 20m+ span	T-72, MLC 50/60 20m+ span
• CEV	T-55 IMR 3.5m wide blade NBC protection	T-64 BAT-2;8 man crew; ripper blade; increased earth move capacity	no change
• AT mines • conventional AT • scatterable • off road	TM-62M (FSU) TYPE 84 (Chinese) none	TM-62M PTM-3 (FSU) PARM 1 (GE)	T-62M PTM-3 PARM 1
• AP mine • conventional • scatterable	PMN (China, IRAQ) PFM-1 (CZ)	PMN (China, Iraq) PFM-1 (FSU)	PMN VS-50 (EG, IT, SP)
Logistics • 2 ton truck • 3.5 ton truck • 4-5 ton truck • 7.5 ton truck • HET	(UNIMOG)(GE) (ZIL-131)(FSU) (URAL-375)(FSU) (Berliet)(FR) MAZ-537(FSU) limited MHE, gas engine, poor speed, high maintenance	Late in Period (07): GAZ-3301(FSU) ZIL-132(FSU) Scania(SW) Mitsubishi FW(JP) MANI (GE) Some MHE, diesel engine, adequate speed, Russian PIP vehicle	no change in capabilities
C3 • VHF radio • advance UHF • HF • multi-channel • troposcatter • satellite	analog/digital slow freq hop AM/double sideband analog radio echelon above brigade	freq hop/burst data EAB, Single Channel Voice	digital, data capability fast freq hop adaptive power, burst digital/slow freq hop
• integrated battlefield area communication system	manual switch, combat net interface		pgm controlled switch, mobile radio-telephone interface, integrated packet switch

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Opposing Forces (OPFOR), Continued

BOS/modernization/TCRs (continued)

Program	Near-Term (FY98-03)	Mid-Term (FY04-08)	Far-Term (FY09-13)
Aviation			
• attack helicopter	1st gen helo(PIP'd) no night vision no integrated fire control (MI-24/variant)	1st gen helo (PIP'd) engine upgrades (MI-24/Variant)	1st gen helo (PIP'd)
• assault helicopter	20-25 soldier cap internal-3K/external-4K very limited night cap daytime MSN Focus	25-30 soldier cap internal-4K/external-5K NVG compatible threat warning/counter-measures	same as mid-term
• reconnaissance UAV • operational UAV	60-80kph loiter; 1.25-2 Hour Endurance; 8-50 NMI Range; Day TV; Real-time data link; Limited JAM HF/VHF	50-97kph loiter; 1.5-8 Hour Endurance; 27-180 NMI Range; LLLTV, FLIR; Real-time Data Jam HF/VHF/FH, GPS Jam; LRF/D; Chem/Biological	same as mid-term
• tactical UAV (note: UAV payloads would be limited to a single purpose, e.g., recon)	.5-3 hour endurance; 190-281 NMI range; day TV, IR camera; real-time data link; limited JAM HF/VHF; laser range finder designator (LRF/D)	<290kph loiter; .5-1.2 hour endurance; day TV, IRLS; real-time data link; jam HF/VHF/FH, GPS jam; LRF/D; chem/biological	same as mid-term
Weapons of mass destruction			
• chemical	non-lethal (CS) lethal (persistent, non-persistent)		
• biological	present (limited capability)	present (limited capability)	present (limited capability)
• nuclear	present (limited capability)	present (limited capability)	present (limited capability)

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Opposing Forces (OPFOR), Continued

OPFOR doctrine

OPFOR doctrine is not based upon the doctrine or tactics of a single potential threat. The OPFOR draws its information from many countries, both friendly and hostile to their cause. The Threat Support Directorate, TRADOC DCSINT, will develop, revise and publish the doctrine and tactics for OPFOR use at the CTCs. The following manuals will be published and reviewed as indicated.

Manual	Publication	Review
FM 100-60, Heavy Organization	published	FY04
FM 100-61, Heavy Operational Art	published	FY07
FM 100-62, Heavy Tactics	TBP	FY08
FM 100-63, Light Organization	TBP	FY04
FM 100-64, Light Operational Art/Tactics	published	FY03
FM 100-65, Equipment Guide	TBP	FY06
FM 100-66, Stability and Support Operations	TBP	FY06